

470-9

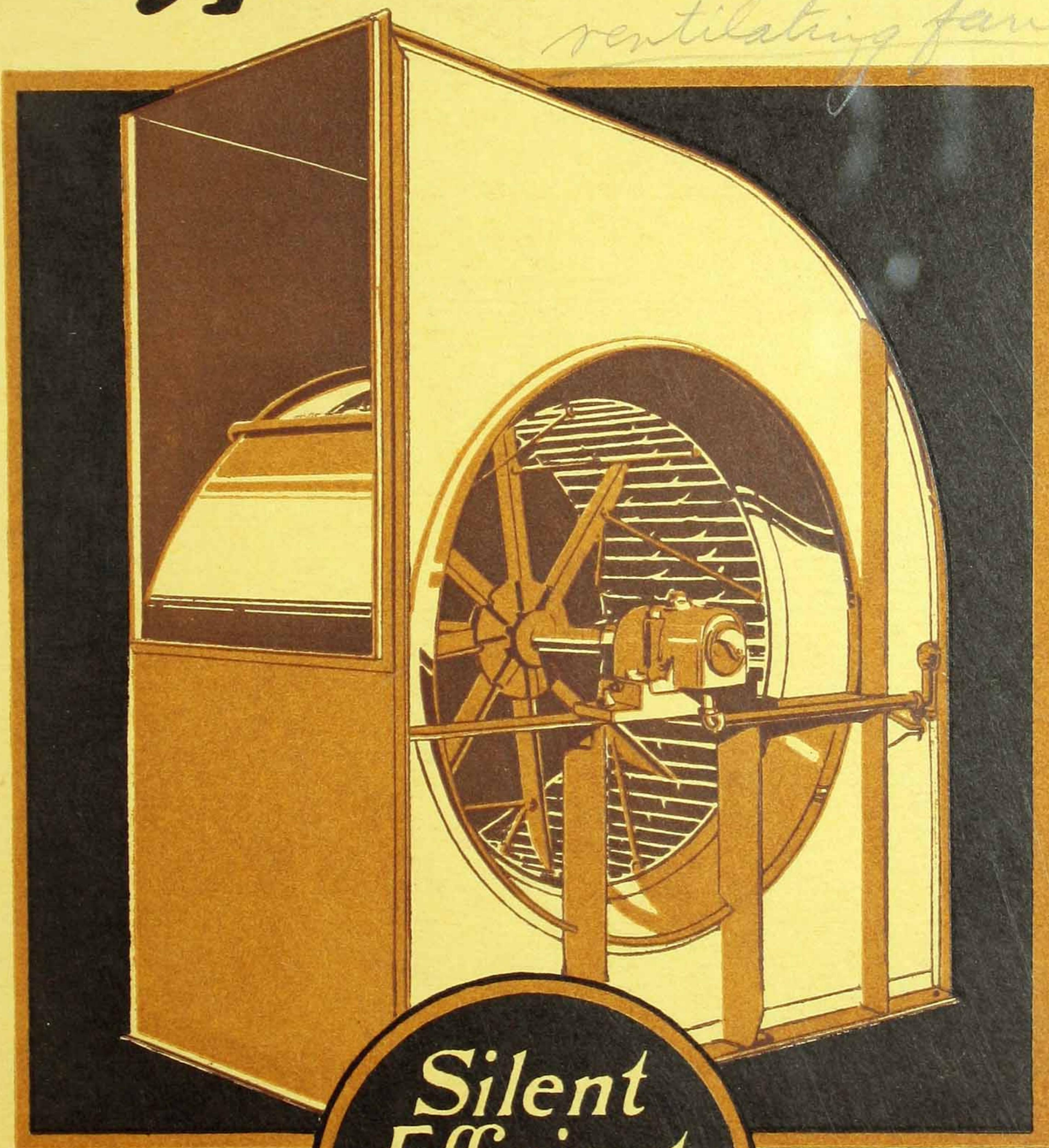
DEC 23 1927

FRANKLIN
INSTITUTE
LIBRARY

CLARAGE

Type HV Fans

ventilating fans



Silent
Efficient
Perform-
ance

REFERENCE BOOK

NUMBER FIFTY-FOUR

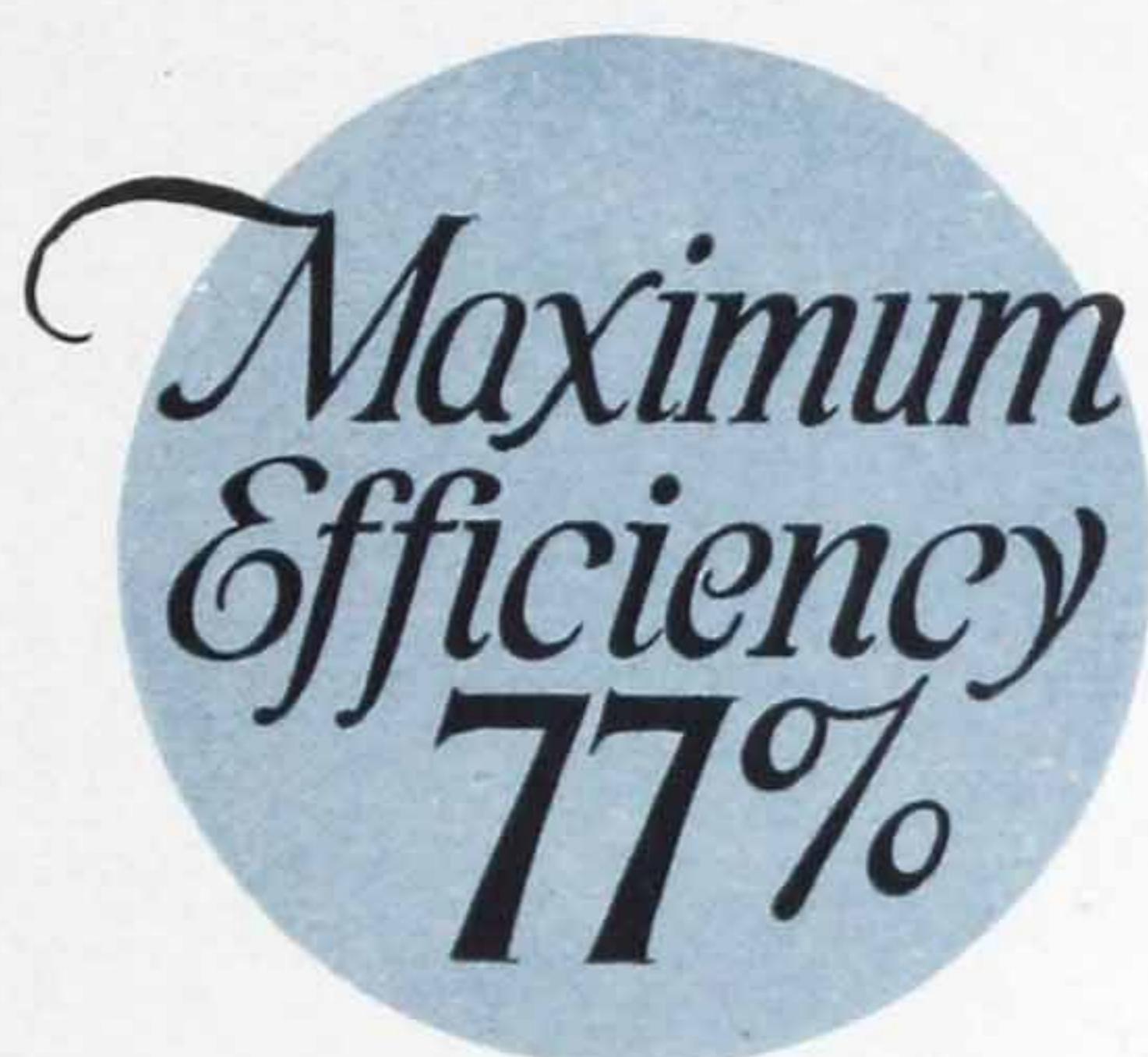
PHILADELPHIA OFFICE
Commercial Trust Building

[BLANK PAGE]



CCA

CLARAGE TYPE HV FANS



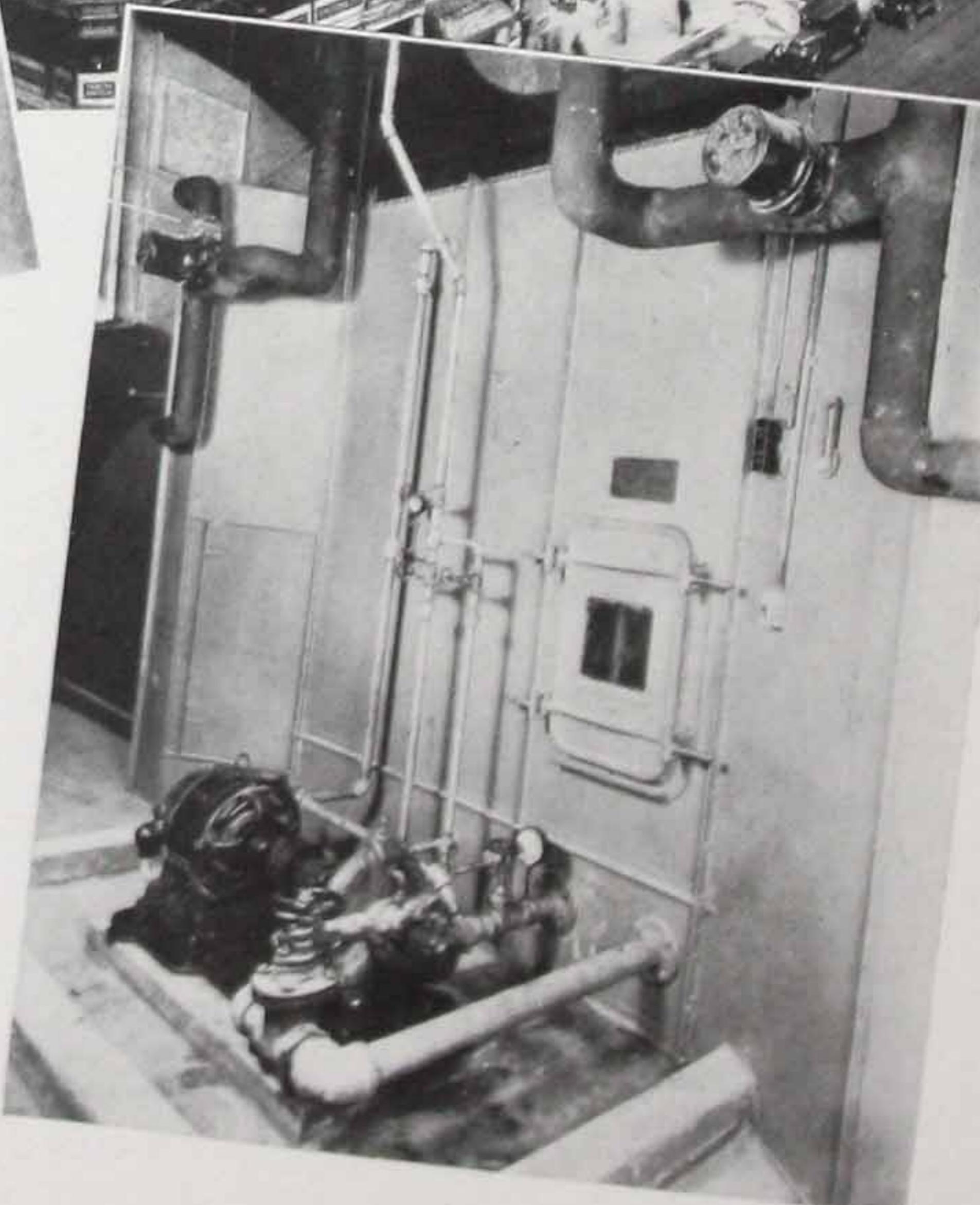
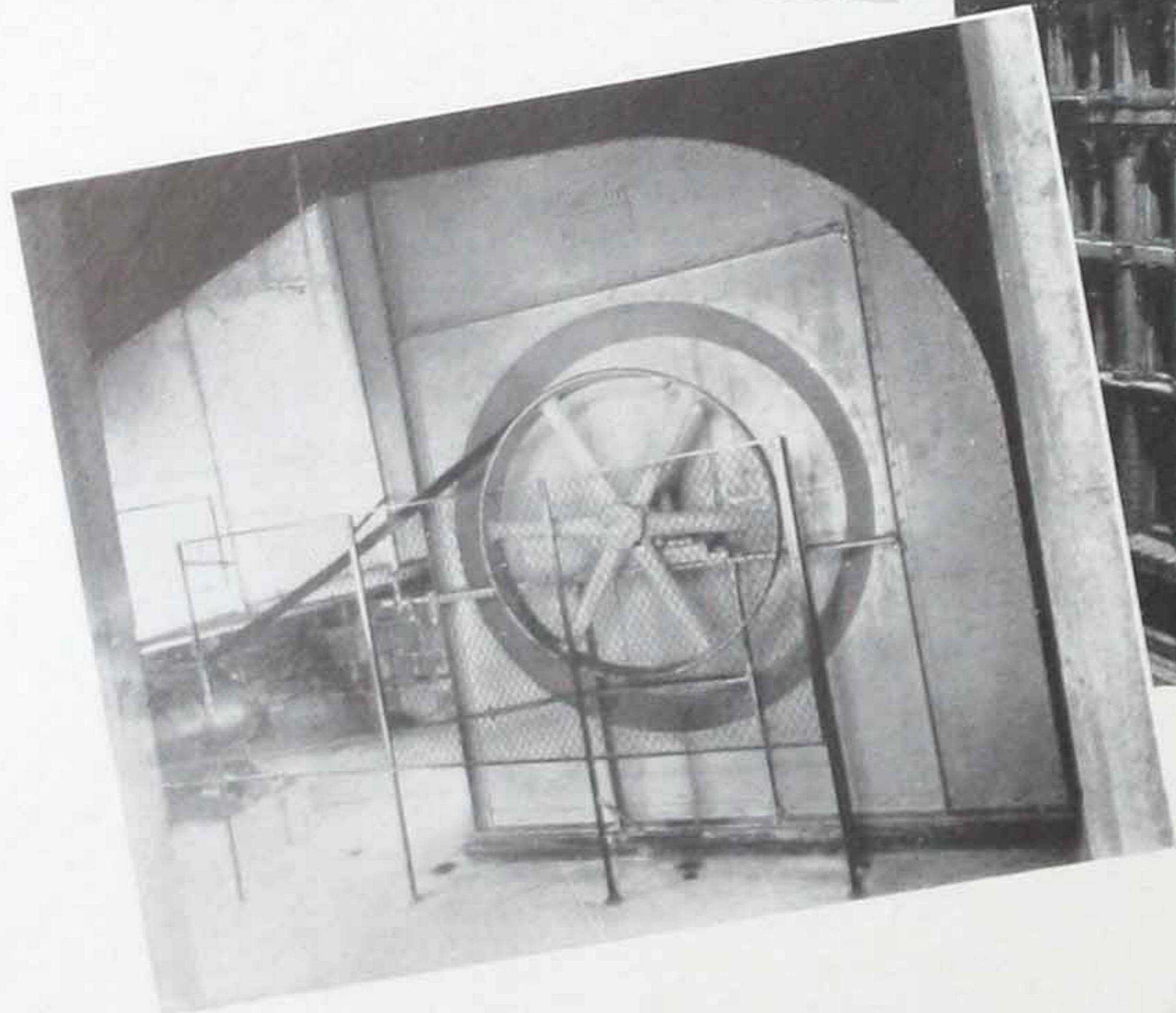
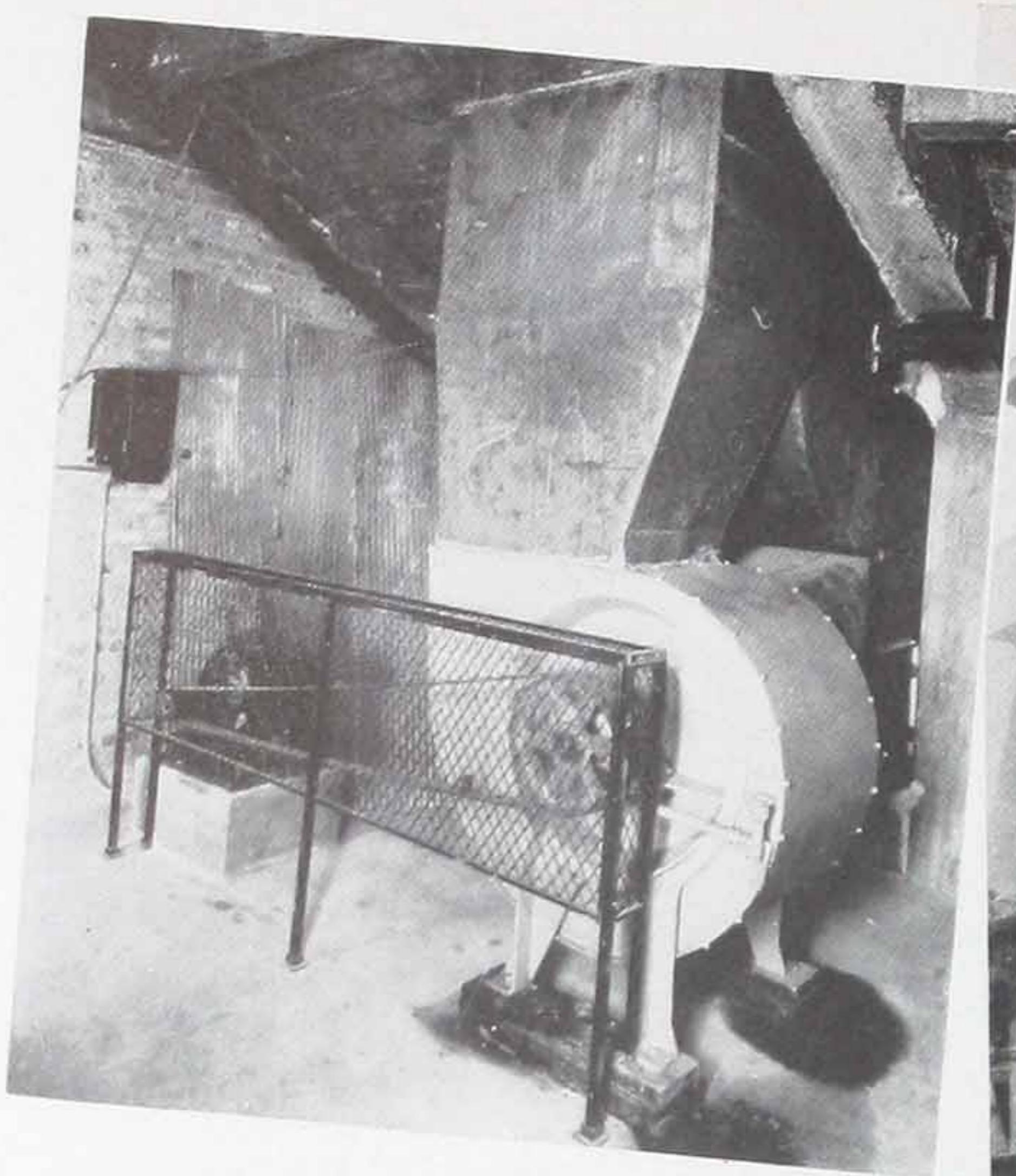
Safeguarding Economy Wherever Ventilation is Essential to Human Health and Comfort

ENGINEERING REFERENCE BOOK NO. 54

CLARAGE FAN COMPANY

Manufacturers of Fans, Air Washers, Unit Heaters, and Engines
KALAMAZOO, MICHIGAN SALES ENGINEERING OFFICES IN PRINCIPAL CITIES

[CLARAGE]



UNITED MASONIC TEMPLE,
CHICAGO, ILLINOIS

Showing one of the large size 7 HV Fans for fresh air supply, a smaller HV Fan for exhaust, and the detail of one of the Clarage Air Washers. In respect to ventilation and air conditioning, this building is fully Clarage equipped—twenty-one HV Fans and eight Type V Air Washers are in continuous operation.

Architects: Rapp & Rapp, Chicago.

Contractors: Phillips, Getschow Co., Chicago.

[TYPE HV FANS]
77% EFFICIENT

[CLARAGE]

Service in the Field Confirms the Efficiency Claims Made for This Fan

IN the laboratory of actual service the Clarge Type HV Multiblade Fan stands thoroughly tested—and approved.

Hundreds of HV Fans have been in continuous operation over two years, yet not a single complaint has been registered against this equipment—not one motor has been overloaded—not one HV Fan has failed to perform as Clarge engineers specified that it would.

Service in the field fully confirms the statements made by this company for this fan when first announced, and consistently reiterated in Clarge advertising since that time. Service records of equipment installed prove beyond question of doubt, that the Type HV Fan develops the unparalleled high maximum efficiency of 77% not only when tested in accordance with the Standard Test Code—but on the job as well. Service records clearly demonstrate that Clarge engineering, as reflected in the fan's unmatched performance, is unmistakably sound.

Today, the HV Fan's exclusive power saving feature, due to the high efficiency of 77%, is a recognized factor wherever fan equipment for ventilating and air conditioning is specified and used. This power saving feature saves as high as 15% to 20% in operating cost. It makes possible with safety the use of smaller, less expensive motors for drive. It often enables an HV Fan one size smaller to meet exacting specifications, and thereby promote another desirable economy in first cost.

Leading architects and engineers throughout the country consistently recommend and endorse the Clarge HV Fan. Leading contractors use this equipment. Highest efficiency plus sturdy, dependable construction and silence of performance all combine to make the HV Fan the best in its class—reasons sufficient why you are likely to prefer it for your own work.



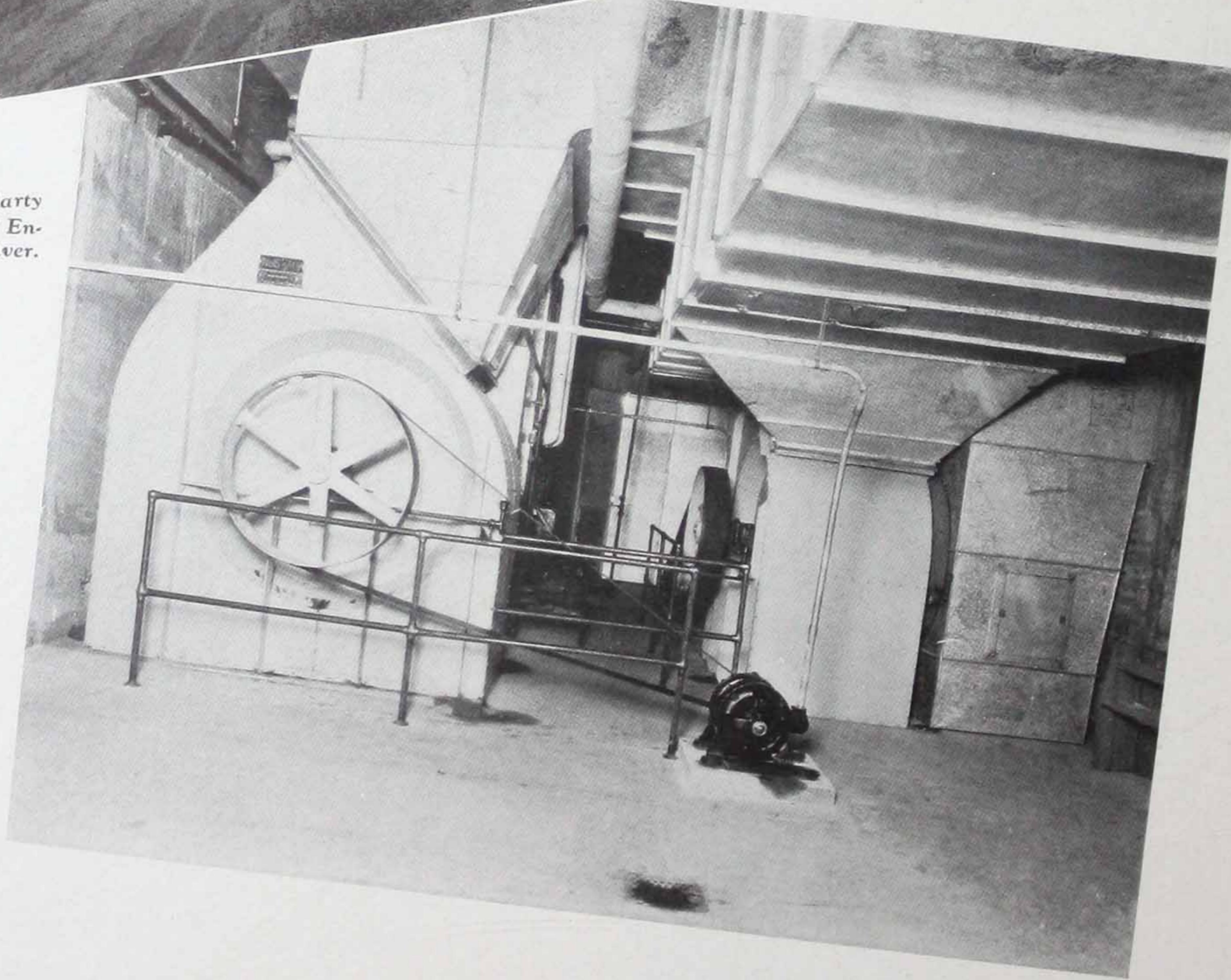
**[TYPE HV FANS]
77% EFFICIENT]**

(CLARAGE)



Architect: George H.
Williamson, Denver.

Contractors: McCarty
Johnson Heating & En-
gineering Co., Denver.



EAST HIGH SCHOOL, DENVER, COLORADO

This great school is one of the finest educational institutions in the country. Twenty-three HV Fans furnish the ventilation. The incoming air is washed and humidified by six Clarage Air Washers. Two of the complete systems are shown above.

(TYPE HV FANS)
77% EFFICIENT

[CLARAGE]

Over Two Thousand Fans are Installed— Many of the Country's Leading Build- ings are HV Fan Equipped

IN the comparatively short time that the Type HV Fan has been available, installations have been made in practically every state in the Union with a total of considerably more than two thousand units now installed. This product of advanced engineering, in view of its exclusive refinements, has gained wide acceptance. The fan industry records no greater success in all of its history.

The partial list of HV ventilating and air conditioning installations given below and on the succeeding page are evidence of the fact that the HV Fan has been selected for some of the finest and largest buildings—hotels, schools, theatres and churches—erected in America during the last few years. In short, Clarge HV Fan Equipment has established an enviable record—bears a good name and is widely used.

A LIST OF NOTABLE HV FAN INSTALLATIONS

- | | |
|--|---|
| Cameo Theatre, New York City. | Ellwood City High School, Ellwood City, Pa. |
| Capitol Theatre, Reading, Pa. | Erlanger Theatre, Philadelphia, Pa. |
| Central High School, Johnstown, Pa. | Fidelity Trust Bldg., Philadelphia, Pa. |
| Central Lutheran Church, Minneapolis, Minn. | Fifteenth Ward School, Allentown, Pa. |
| Central School, Rochester, Minn. | Forty-Second Street School, Los Angeles, Calif. |
| Chapel Theatre, Columbus, Ohio. | Fort Morgan School, Fort Morgan, Colo. |
| Colonial Theatre, Allentown, Pa. | Gates Theatre, Brooklyn, N. Y. |
| Colonial Theatre, Richmond, Va. | Grauman Chinese Theatre, Los Angeles, Calif. |
| Collingwood Ave. Presbyterian Church, Toledo,
Ohio. | Greenpoint Savings Bank, Brooklyn, N. Y. |
| Cortland High School, Cortland, N. Y. | Grove Theatre, Chicago, Ill. |
| Country Club, Amherst, N. Y. | Hanover Hospital, Hanover, Pa. |
| Drexel Hill Theatre, Clifton, Pa. | Hayes Hotel, Jackson, Mich. |
| Earle Theatre, Philadelphia, Pa. | Jewelers' Bldg., Chicago, Ill. |
| Earle Theatre, Washington, D. C. | Keith's Fordham Theatre, New York City. |
| East End High School, Duluth, Minn. | Lake Shore Athletic Club, Chicago, Ill. |
| East High School, Denver, Colo. | Lincoln Hotel, Lincoln, Nebr. |
| East Lansing School, East Lansing, Mich. | Lincoln School, Los Angeles, Calif. |
| East School, Menominee, Wis. | Loew's Theatre, Canton, Ohio. |
| Easton Theatre, Easton, Pa. | Loew's Theatre, Norfolk, Va. |
| Eau Claire High School, Eau Claire, Wis. | Loew's Theatre, Washington, D. C. |
| Edgewater Club, Santa Monica, Calif. | Loew's Astor Theatre, New York City. |
| Elks Memorial Building, Chicago, Ill. | Loew's 83rd St. Theatre, New York City. |
| | Loew's Fordham Theatre, Bronx, N. Y. |

Continued on Next Page

[TYPE HV FANS]
77% EFFICIENT]

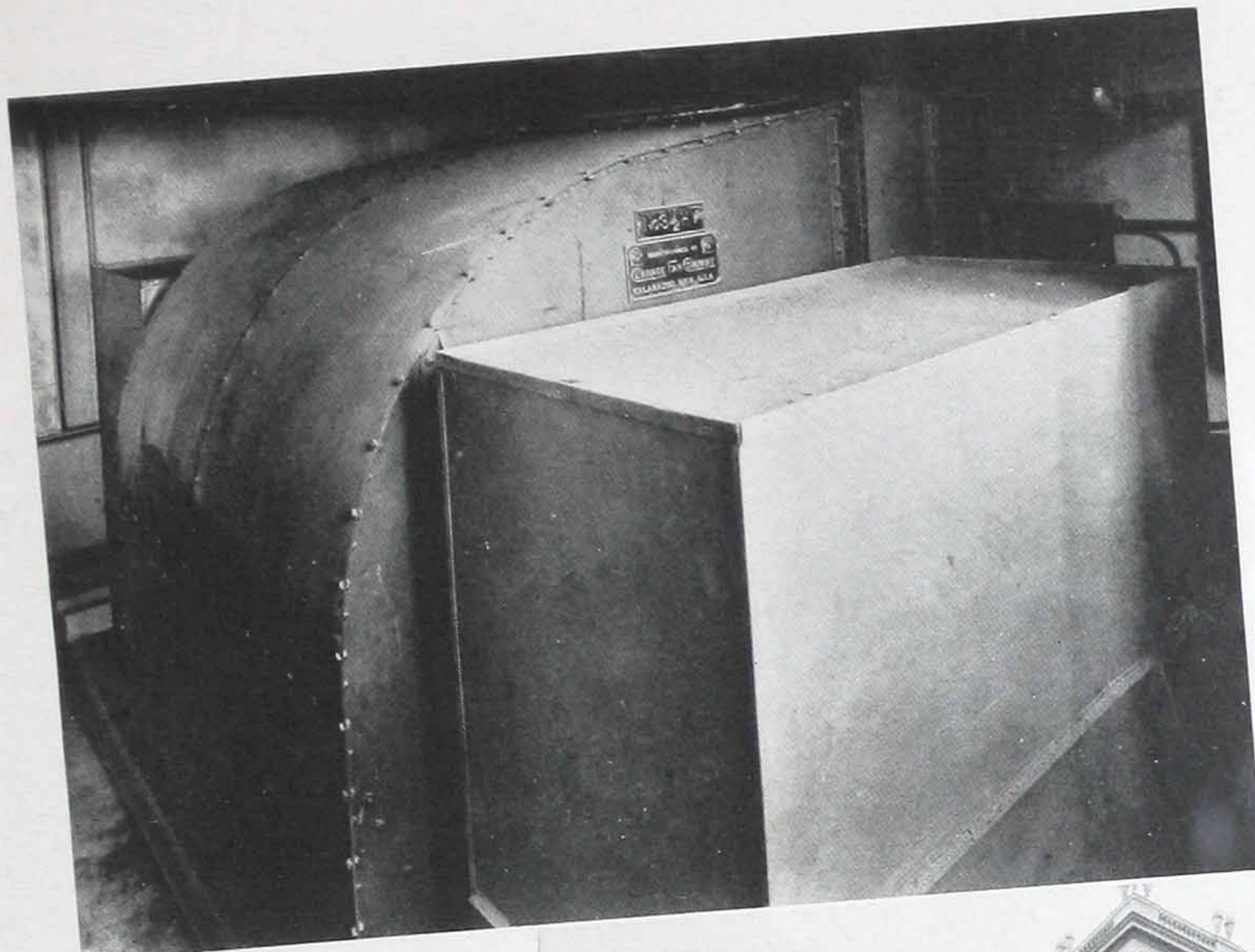
[CLARAGE]

NOTABLE INSTALLATIONS—Continued

- Loew's Hawthorne Amusement, Brooklyn, N. Y.
Loew's Gates Theatre, Brooklyn, New York.
Loew's Lexington Theatre, New York City.
Loew's New Rochelle Theatre, New Rochelle,
N. Y.
Loew's Newark Theatre, Newark, N. J.
Longmont High School, Longmont, Colo.
Lydick School, South Bend, Ind.
Marks' Bros. Theatre, Chicago, Ill.
Martha Wilson Hospital, Chicago, Ill.
Masonic Temple, South Bend, Ind.
Massillon State Hospital, Massillon, Ohio.
Michigan State College, Lansing, Mich.
Michigan State Prison, Jackson, Mich.
Mitchell School, Denver, Colo.
Muhlenberg College, Muhlenberg, Pa.
National Theatre, Richmond, Va.
New Palace Theatre, Chicago, Ill.
New York University, New York City.
North Shore Theatre, Chicago, Ill.
Norwood Theatre, Norwood, Pa.
Norva Theatre, Norfolk, Va.
Olds Hotel, Lansing, Mich.
Olympic Theatre, Brooklyn, N. Y.
Oriental Theatre, Chicago, Ill.
Orpheum Theatre, Rockford, Ill.
Orpheum Theatre, Madison, Wis.
People's Church, Chicago, Ill.
Pershing Palace, Chicago, Ill.
Proctor's 86th St. Theatre, New York City.
Prospect Street School, Salem, Ohio.
Randolph High School, Randolph, N. Y.
Ravenswood Masonic Lodge, Chicago, Ill.
Riverside Drive Apartments, New York City.
Rogers Hotel, Bloomington, Ill.
Saint Joseph Parochial School, South Bend, Ind.
San Pedro Young Men's Christian Ass'n., San
Pedro, Calif.
Saint Mathias School, Chicago, Ill.
Saint Mary's Public School, Saint Mary's, Pa.
St. Anne's Church, Minneapolis, Minn.
Sacred Heart School, Robinsdale, Minn.
Saxe Theatre, Kenosha, Wis.
Seneca Hotel, Chicago, Ill.
Sherman Hotel, Chicago, Ill.
Shoreland Hotel, Chicago, Ill.
St. Mary's School, Faribault, Minn.
Spaulding Hotel, Duluth, Minn.
Stanley Theatre, Pittsburgh, Pa.
Stanley Crandall Theatre, Baltimore, Md.
State Theatre, Easton, Pa.
State Theatre, Harrisburg, Pa.
State Theatre, Kalamazoo, Mich.
Stevens Hotel, Chicago, Ill.
University of Notre Dame, South Bend, Ind.
United Masonic Temple, Chicago, Ill.
Ure Theatre, Chicago, Ill.
Union Trust Bldg., Chicago, Ill.
Universal Films Theatre, New York City.
University of Illinois, Urbana, Ill.
United Studios Theatre, Kenosha, Wis.
Uptown Theatre, Chicago, Ill.
Uptown Theatre, Milwaukee, Wis.
Vocational School, Pasadena, Calif.
Washington-Duke Hotel, Durham, N. C.
Washington Junior High School, Pasadena,
Calif.
Washington School, Los Angeles, Calif.
Washburn High School, Minneapolis, Minn.
Webster Hall, Pittsburgh, Pa.
Westchester Biltmore Club, Rye, N. Y.
West Tremont Ave. Theatre, New York City.
West Virginia State Capitol, Charleston, W. Va.
Willard Theatre, Chicago, Ill.
Woolworth 42nd St. Store, New York City.
Worcester Theatre, Worcester, Mass.
Young Men's Christian Ass'n., Chicago, Ill.

[TYPE HV FANS]
77% EFFICIENT

[CLARAGE]



Architects: Stanhope S. Johnson and R. O. Brannon, Lynchburg, Virginia.

Contractors: Dermott Heating Co., Durham.



WASHINGTON-DUKE HOTEL,
DURHAM,
NORTH CAROLINA

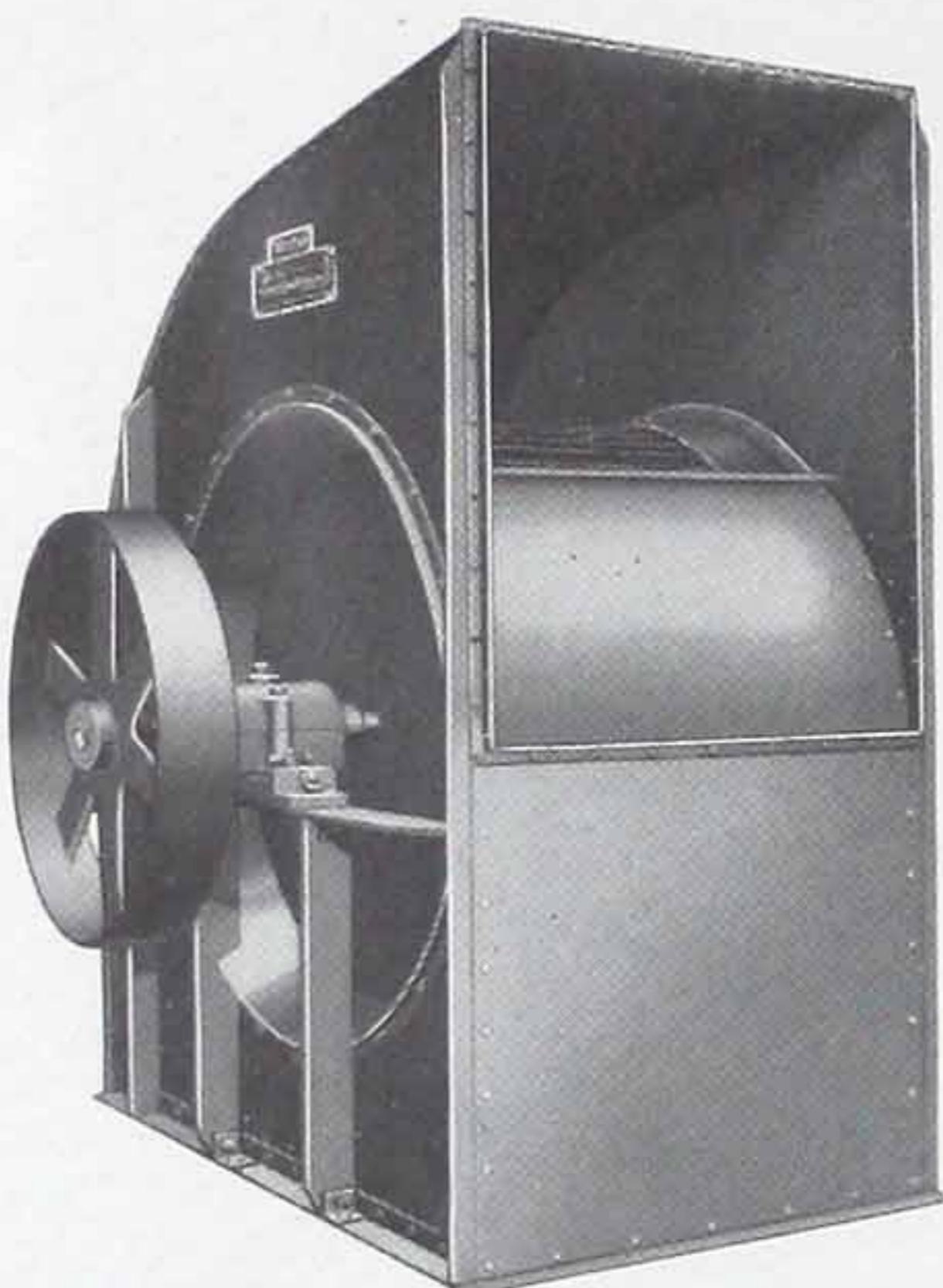
South of the Mason and Dixon Line, as well as North of it, the HV Fan is used extensively. An outstanding Southern installation is this splendid hotel at Durham. Four large HV Fans, one of which is shown above, furnish adequate ventilation for this building.

[TYPE HV FANS]
77% EFFICIENT

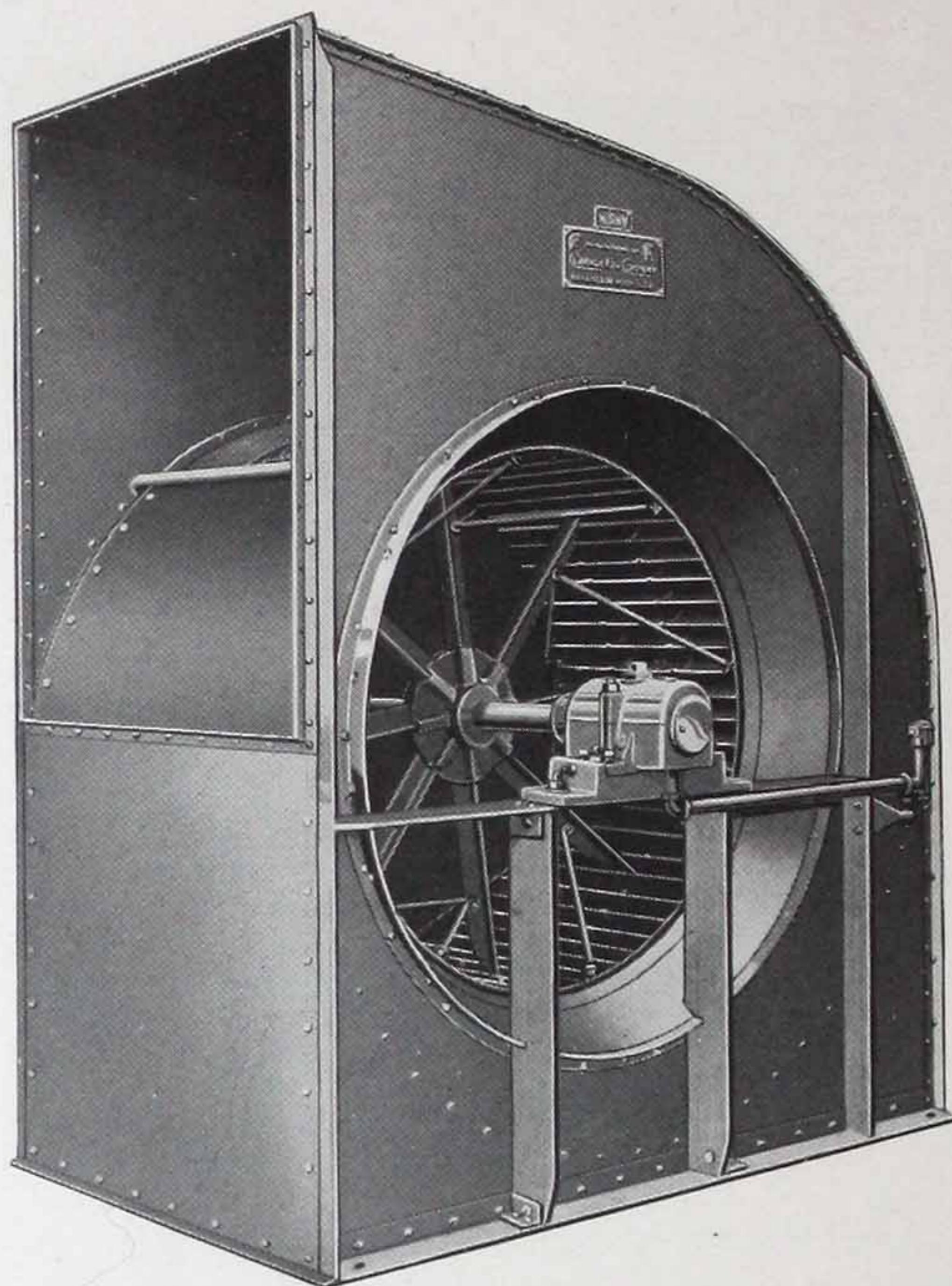
[CLARAGE]

Note trim, sturdy appearance of this HV Fan, particularly the generous size of bearings and that the steel bearing supports run to the foundation line, a feature offered as standard equipment on Clarge Fans.

The Single Width Fan is built either Single or Double Inlet.



DRIVE SIDE, SINGLE INLET,
ARRANGEMENT A



INLET VIEW, ARRANGEMENT A

Type HV Fan—Sizes 3½ to 9

THE Clarge HV Fan is manufactured in an ample range of sizes, covering every requirement as encountered in ventilation and air conditioning work. The architect, engineer or contractor need not go outside this efficient, well-built line of equipment to economically and satisfactorily meet any problem in the field. The following pages are devoted to the three general types of construction as used in building the equipment and to a discussion of constructional features with important notes on drive, Standard Arrangements, etc.

In the larger sizes, 3½ to 9, the HV Fan is furnished to meet the particular requirements of each individual installation. After assembly the unit is not adjustable for direction of discharge, although any direction of discharge may be specified at time of ordering and the fan will be built accordingly. The fan rotation may be changed after installation, if desired.

The housing is of heavy gauge sheet steel rigidly braced by angles and finished in workmanlike manner. Inlet and outlet connections permitting easy attachment of sheet metal ducts are provided as standard equipment with proper canvas connections furnished as an extra where specified. The wheel is thoroughly braced as illustrated on page 13, accurately balanced, and is supported by a shaft of ample size which eliminates vibration even though the operating speed is considerably higher than customary practice.

The Clarge Special Bearings, *self-aligning, dust-proof, and oil-tight* are mounted on structural steel supports extending to the floor line. Wear in the bearings may be taken up by a simple adjustment.

The HV Fan in these larger sizes is so constructed that it may be easily taken apart to

[TYPE HV FANS]
77% EFFICIENT

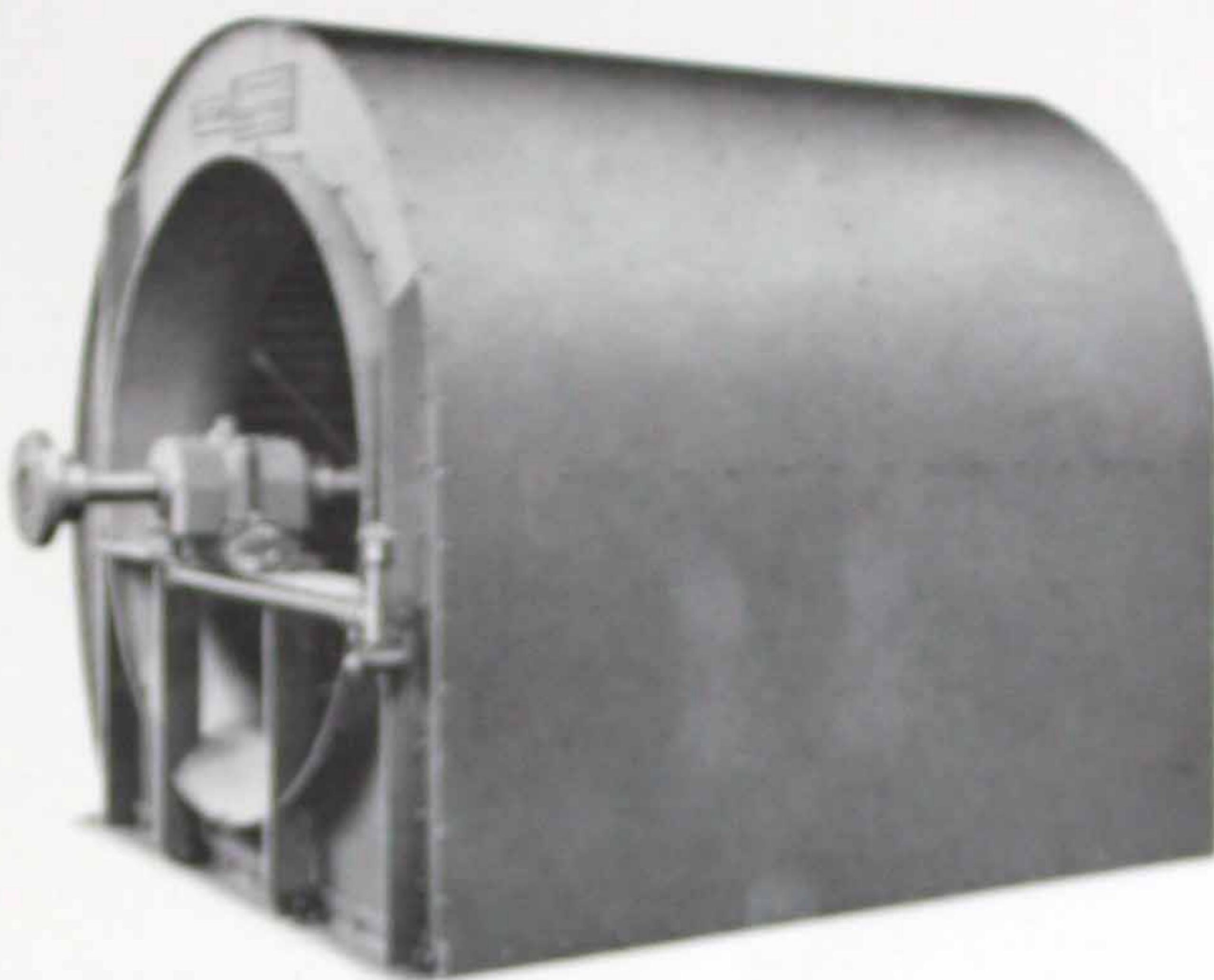
[CLARAGE]

gain entrance into buildings through comparatively small openings, and it is not a difficult task to reassemble the unit after entrance has been made. The only limiting factor is the wheel which cannot be "knocked down."

Double Width Fan

The HV Fan, sizes 3½ to 9, double width is constructed in the same general high grade manner as is the single width fan, except that for size the housing is practically twice the width, and the unit is furnished with two wheels instead of one.

The double width fan is recommended principally to meet two conditions: first, where insufficient head room will not permit the installation of a single width fan of proper size (for instance if the equipment is large or if the apparatus is to be



DOUBLE WIDTH, DOUBLE INLET, ARRANGEMENT C—18 INCHES

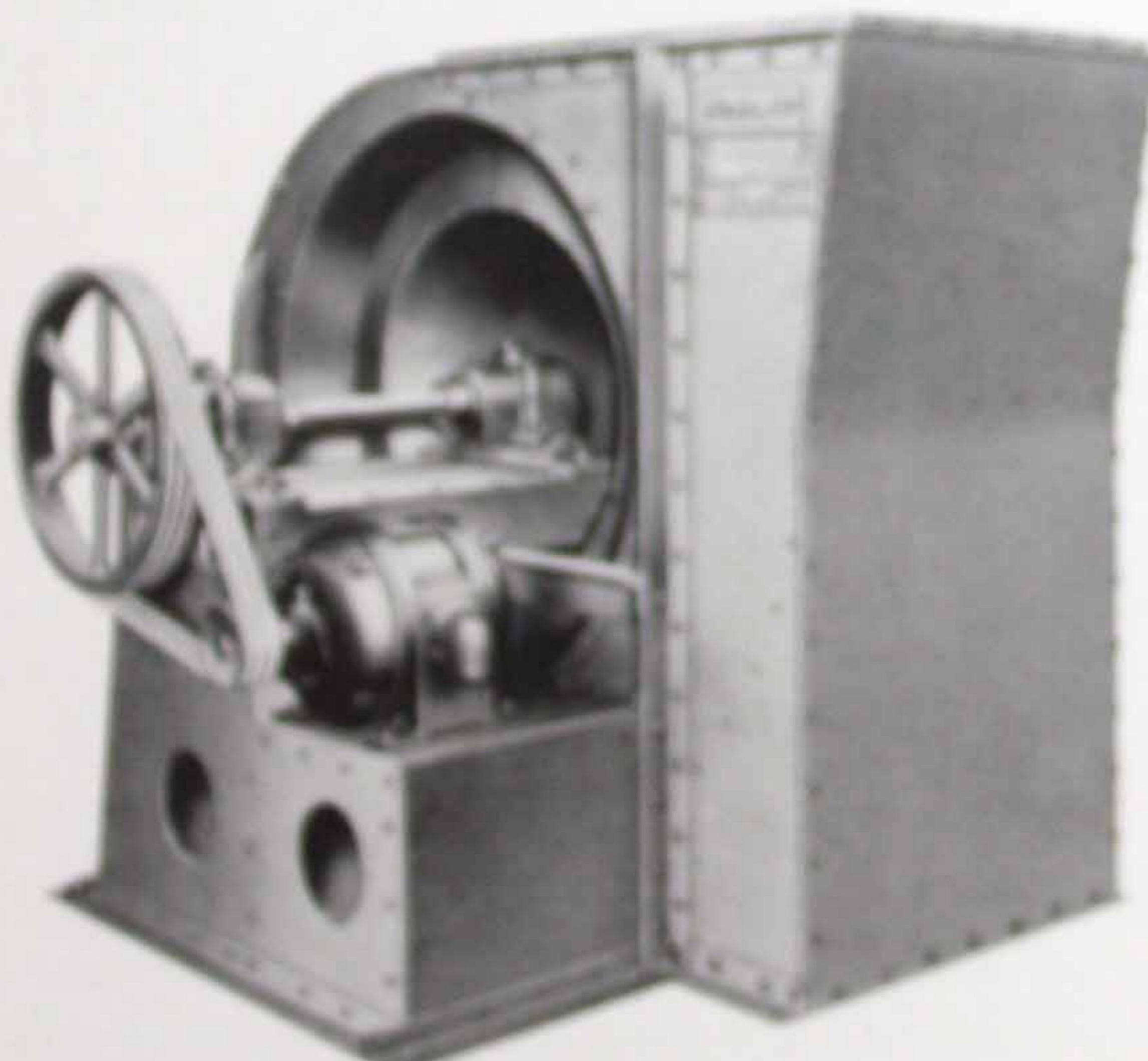
installed in an old building where no provision has been previously made for ventilation by means of a central fan system); second, where a higher operating speed is desired in order that the unit may be direct connected to a standard speed motor. The double fan has an over-all height decidedly less than the over-all height of a single width fan of same capacity, while its operating speed is considerably higher for any given requirement. These advantages account for the fact that the double width unit is widely used.

The Clarge HV Fan, double width is built only as a blower with two inlets and is furnished in the Standard Arrangements indicated on page 16. Capacities for this fan can be easily computed from the Performance Tables by following the rules given on page 12.

7-8 Housed Fan

The HV Fan, sizes 3½ to 9, is built ½ housed single and double width in the Standard Arrangements noted on page 15. It is not furnished in sizes smaller than the 3½.

*Detailed Data on sizes 3½ to 9;
Features of Construction, Pages 11 to 15.
Performance Tables, Pages 16 to 17.
Dimension Charts, Pages 42 to 46*



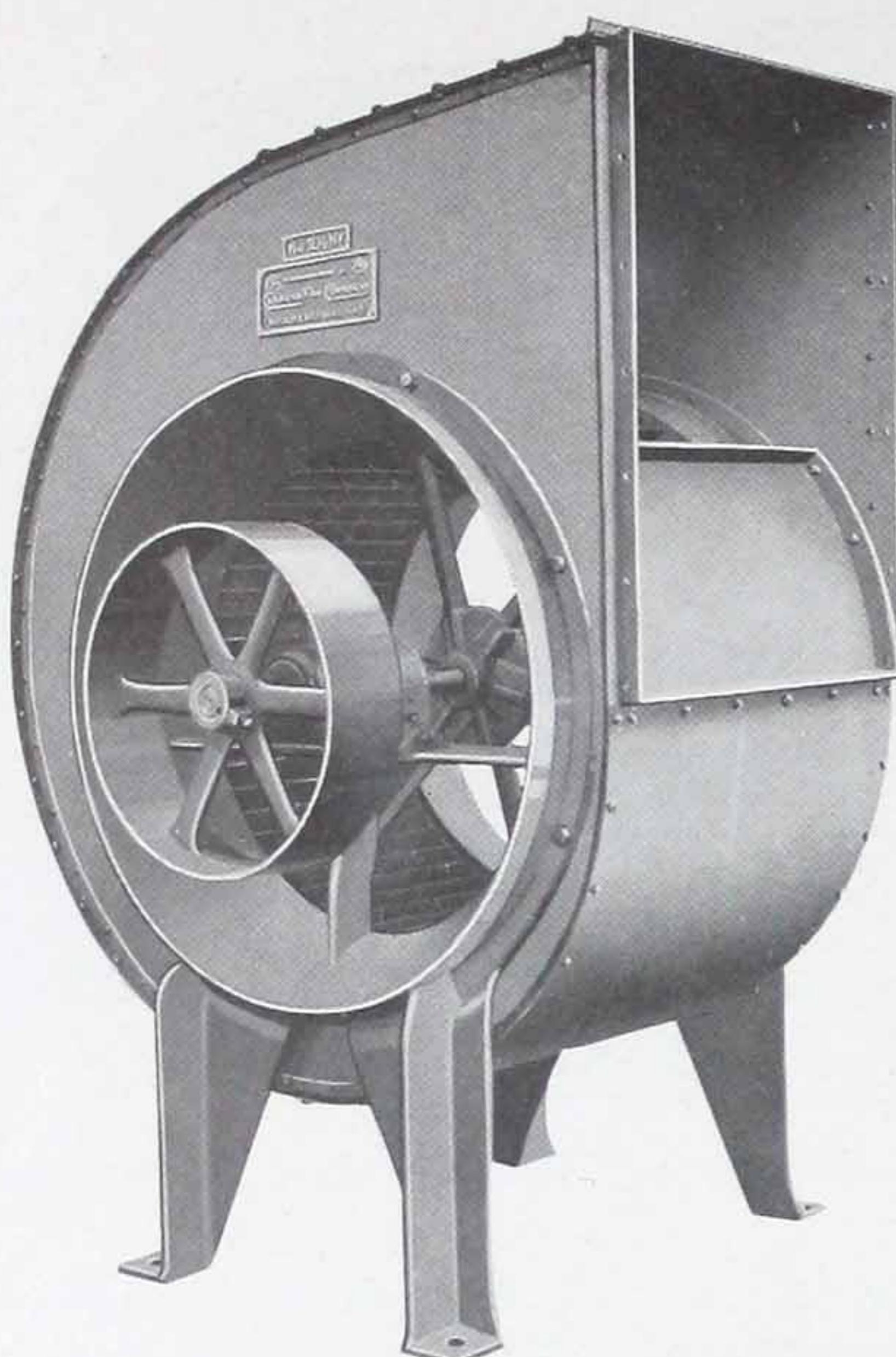
TEXSCOPE DRIVE—ARRANGEMENT F

Arranged as shown, the HV Fan is well adapted to any approved short center drive—very compact unit requiring small floor space.

In view of its unparalleled efficiency, silence of operation and dependable characteristics, it is accepted practice with many architects and engineers to specify the Clarge HV Fan outright. Standard Specification which may prove helpful are given on page 16.

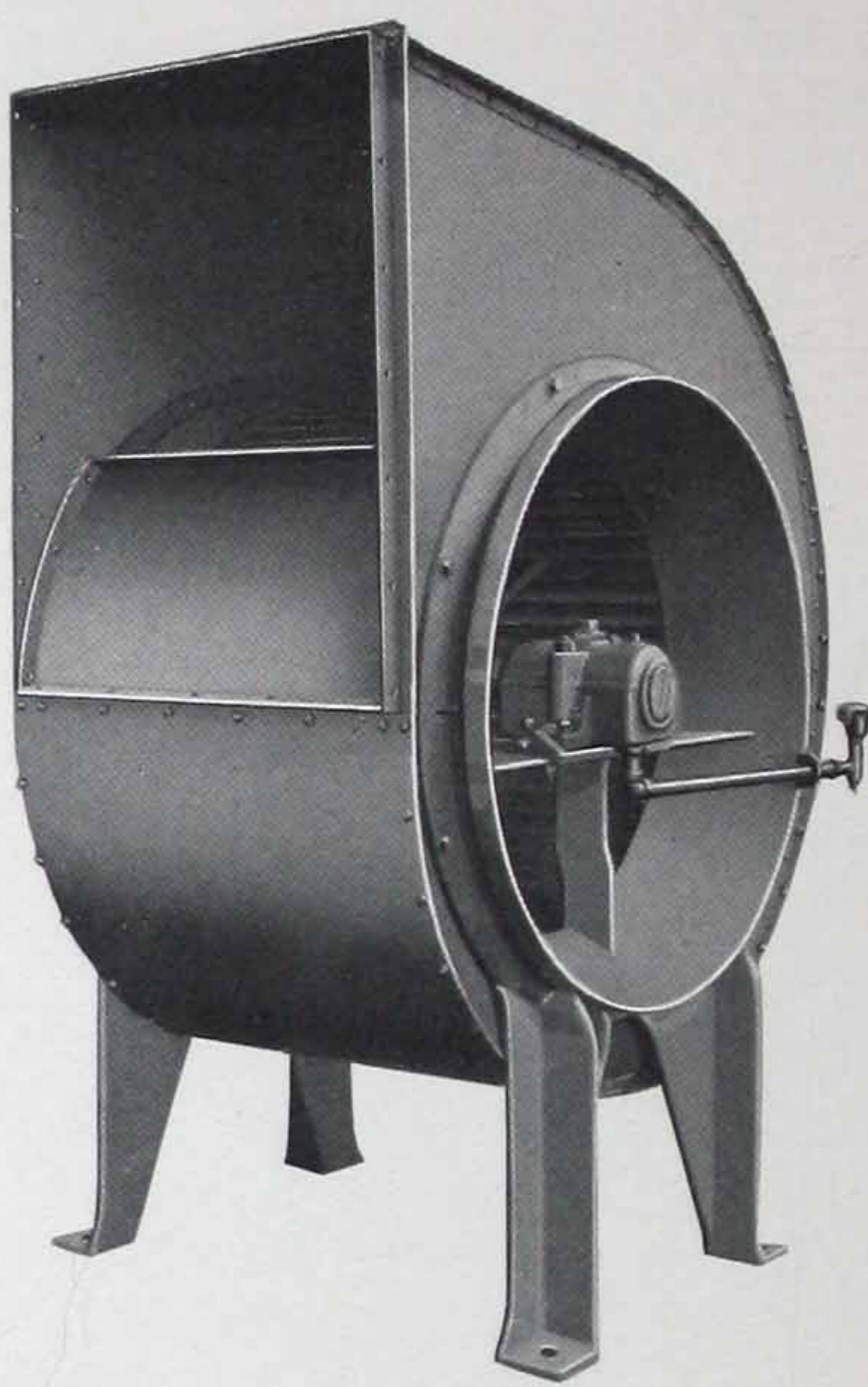
[TYPE HV FANS]
77% EFFICIENT

—[CLARAGE]—



DRIVE SIDE, DOUBLE INLET, ARRANGEMENT A

Note: Single Width Fan is built either Single or Double Inlet.



INLET VIEW, ARRANGEMENT A

Type HV Fan—Sizes 1½ to 3

THE HV Fan, sizes 1½ to 3, is built with a housing of sheet steel and with heavy cast iron side plates. The side plate castings are massive (note cast iron arm construction in Arrangement B Fan), offering rigid support to the Clarage *self-aligning, dust-proof, oil-tight* Bearings, the wheel and shaft, and to the housing. This Clarage construction is the most rugged on the market which accounts for the excellent service records established by the HV Fan in these smaller sizes.

The wheel is constructed in the same high grade manner used in building the wheel for the larger HV Fan. It is given both a static and running balance test (see page 13).

Double Width Fan

Where head room is limited or where a higher operating speed is desired for direct motor drive, the double width fan is recommended. As is the case in the large HV sizes, a double width fan has an over-all height considerably less than a single width fan of same

capacity, while its operating speed will be higher for any specified performance. The double width fan is only furnished as a blower with two inlets and is equipped with two wheels. It is built in the Standard Arrangements shown on page 16. To determine capacities, use the Performance Tables for the single width fan following the instructions given on page 19.

The HV Fan, sizes 1½ to 3, is not furnished $\frac{7}{8}$ housed.

Reversible and Adjustable Feature

Another advantage incorporated into the design and construction of the HV Fan, sizes 1½ to 3, is the method used in securing the housing to the side plate castings. Eight tap bolts are used and the holes for the tap bolts are spaced equidistant and drilled to template. This Clarage feature permits the fan to be reversible for any of eight directions of air discharge, either clockwise or counter-clockwise rotation, making possible a total of sixteen

—[TYPE HV FANS]
77% EFFICIENT

[CLARAGE]

different discharge combinations with the same HV Fan.

A new layout of ventilating equipment need not mean bad angles in the duct work or a new fan—the Clarage HV Fan is quickly adapted to the new conditions. Two men in twenty minutes' time at the outside can easily change both direction of air discharge and fan rotation—it is a simple job. Clarage Bulletin 1000 illustrates the sixteen discharge combinations available.

This special side plate construction also allows the fan wheel to be easily removed from the housing for cleaning and inspection, since both cast iron side plates cover openings in the fan housing which are larger in diameter than the fan wheel.

Double Fan

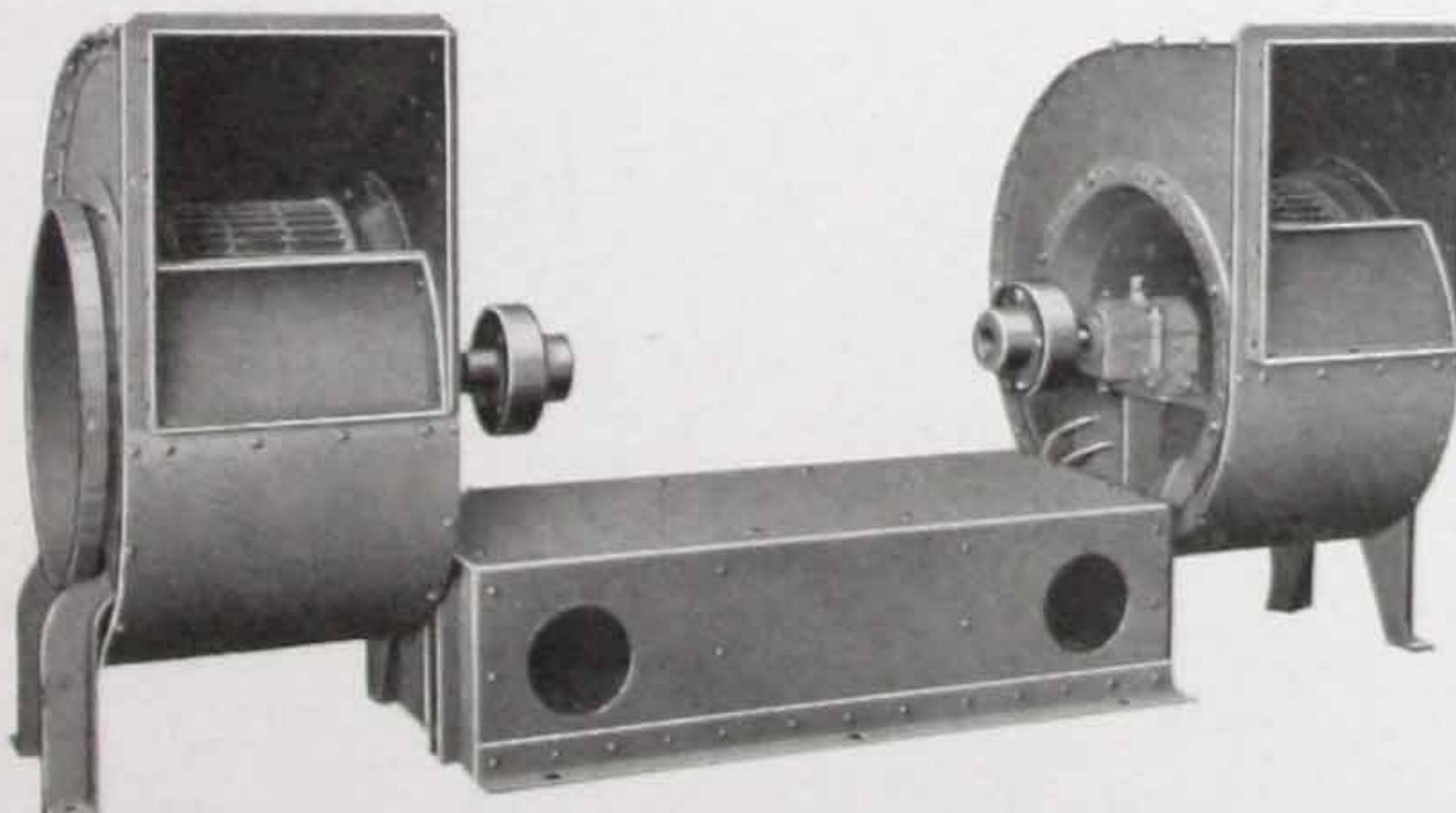
The Double HV Fan, an exclusive Clarage feature, consists of two standard single width fans connected as shown with drive in the center. The unit is regularly built in sizes $1\frac{1}{2}$ to 3, having the cast iron side plate construction. It is principally used where two different directions of air discharge are required, eliminating the necessity for a double discharge fan which cannot offer the same high efficiency. The double fan requires small headroom, another advantage. Capacities are computed as for the standard double width HV Fan.

Detailed Data on sizes $1\frac{1}{2}$ to 3:

Features of Construction, Pages 13 to 15.

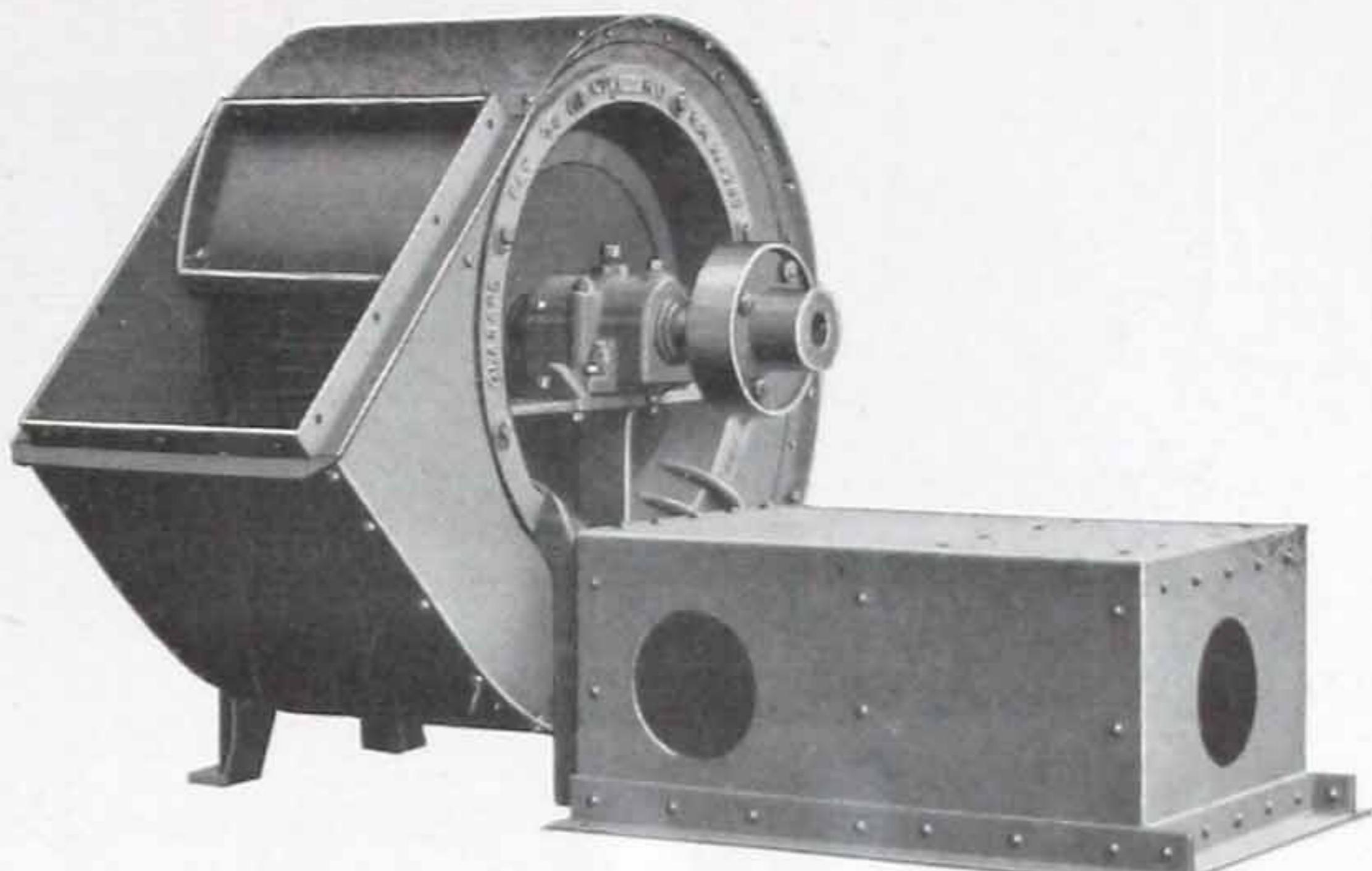
Performance Tables, Pages 20 to 25.

Dimension Charts, Pages 38 to 41.

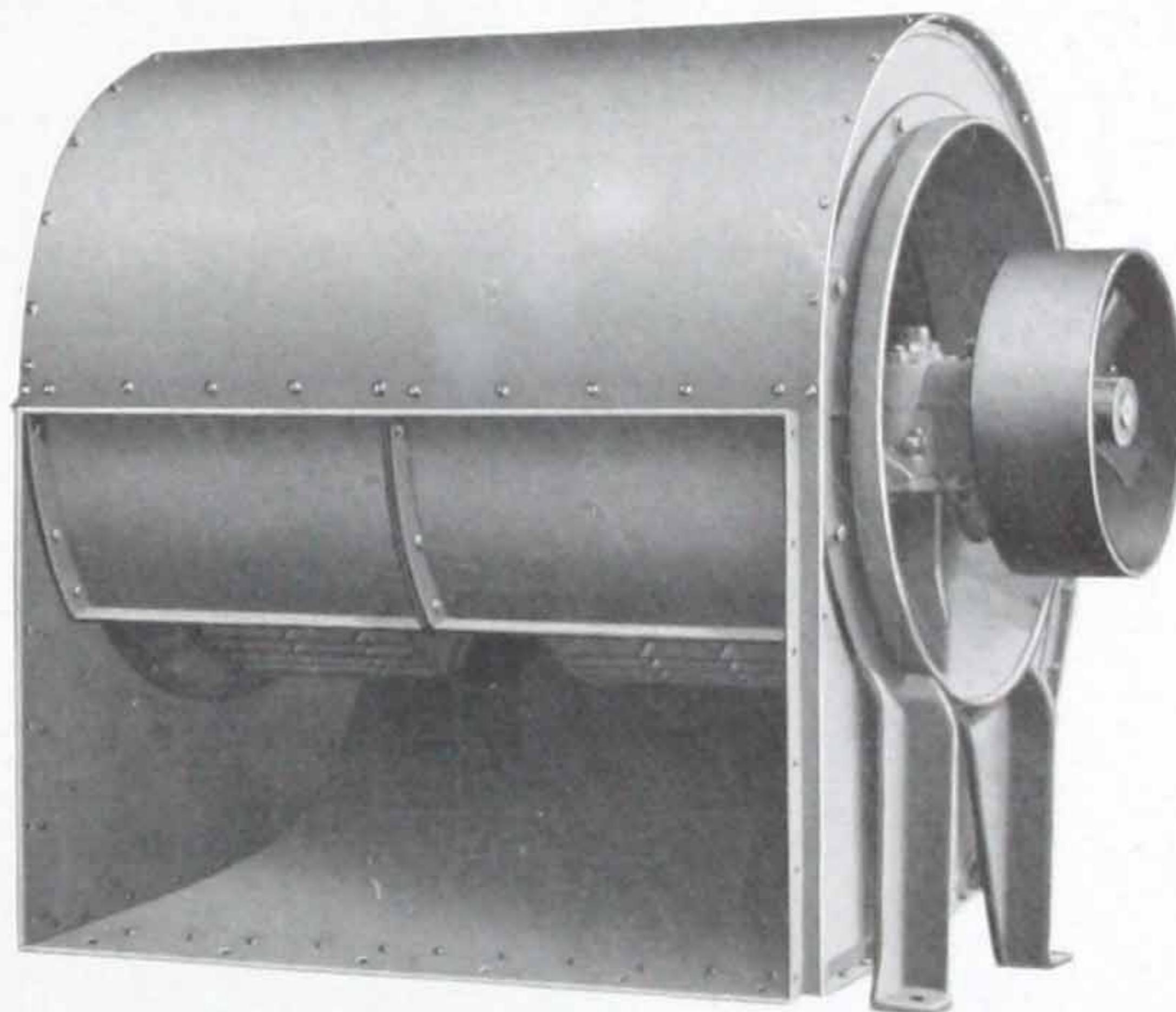


DOUBLE FAN ARRANGED FOR DIRECT MOTOR DRIVE, ARRANGEMENT I

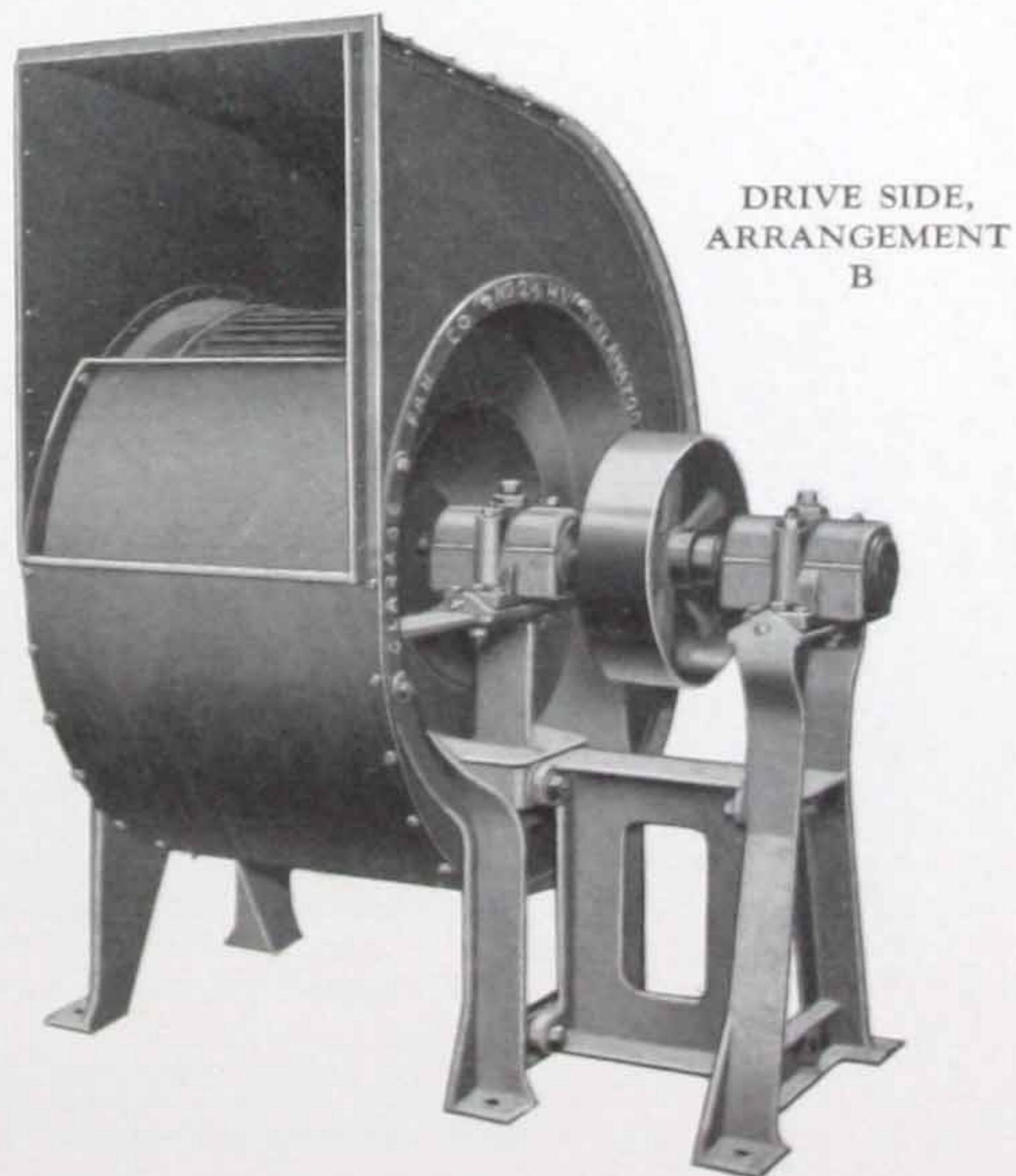
Note: The Double HV Fan is also furnished in Arrangement B for belt drive with pulley in center.



EQUIPPED FOR DIRECT MOTOR DRIVE,
ARRANGEMENT G



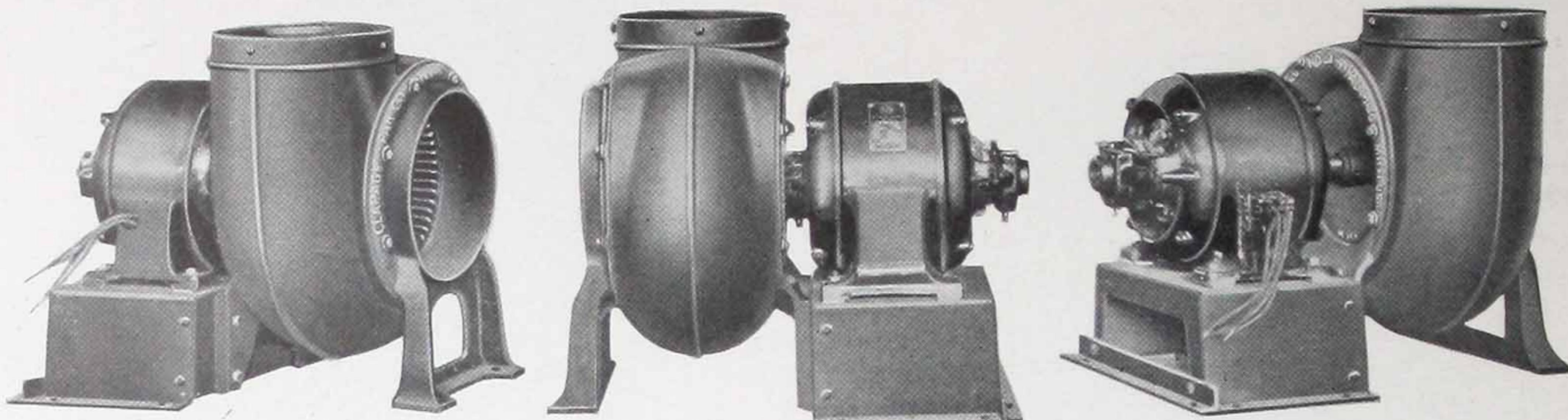
DOUBLE WIDTH, DOUBLE INLET, ARRANGEMENT A



DRIVE SIDE,
ARRANGEMENT
B

[TYPE HV FANS]
77% EFFICIENT

[CLARAGE]

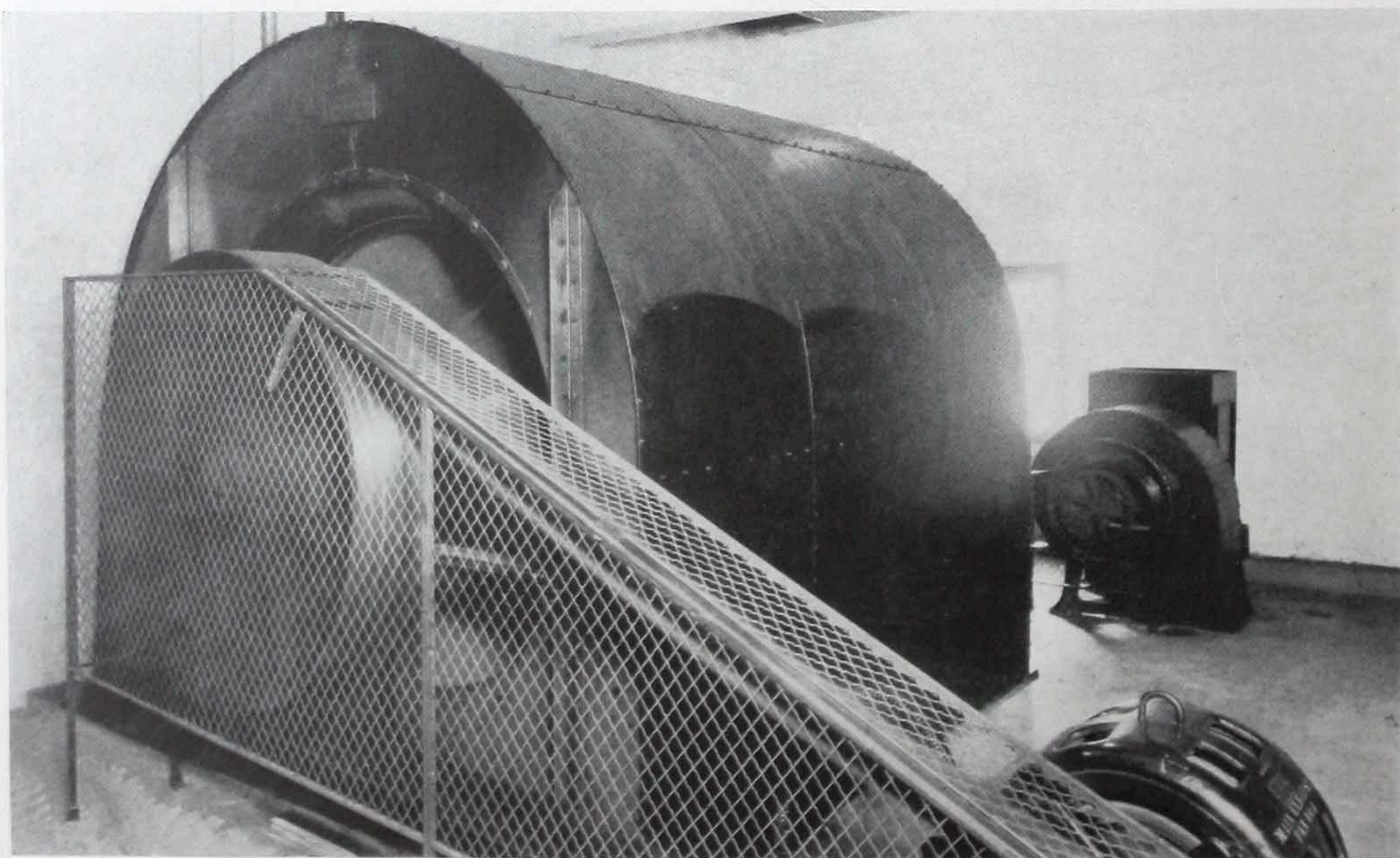


MOTOR DRIVEN UNITS, ARRANGEMENT E

Type HV Fan—Sizes $\frac{1}{2}$ to $1\frac{1}{4}$

THE HV Fan in these small sizes is widely used for ventilation work of all kinds—ventilating toilets, telephone booths, cellars, bank vaults, etc., supplying fresh air to small offices and staterooms, and removing fumes from process work and chemical laboratories. It is also used extensively in small cooling and drying installations.

The fan is regularly furnished in Arrangement E for direct motor drive, as shown above, or in Arrangement B for belt drive. It is equally as well designed and as sturdily built as are the larger HV units, offering the same high efficiency, power saving feature. Ask for Bulletin 541, giving complete description and performance tables.

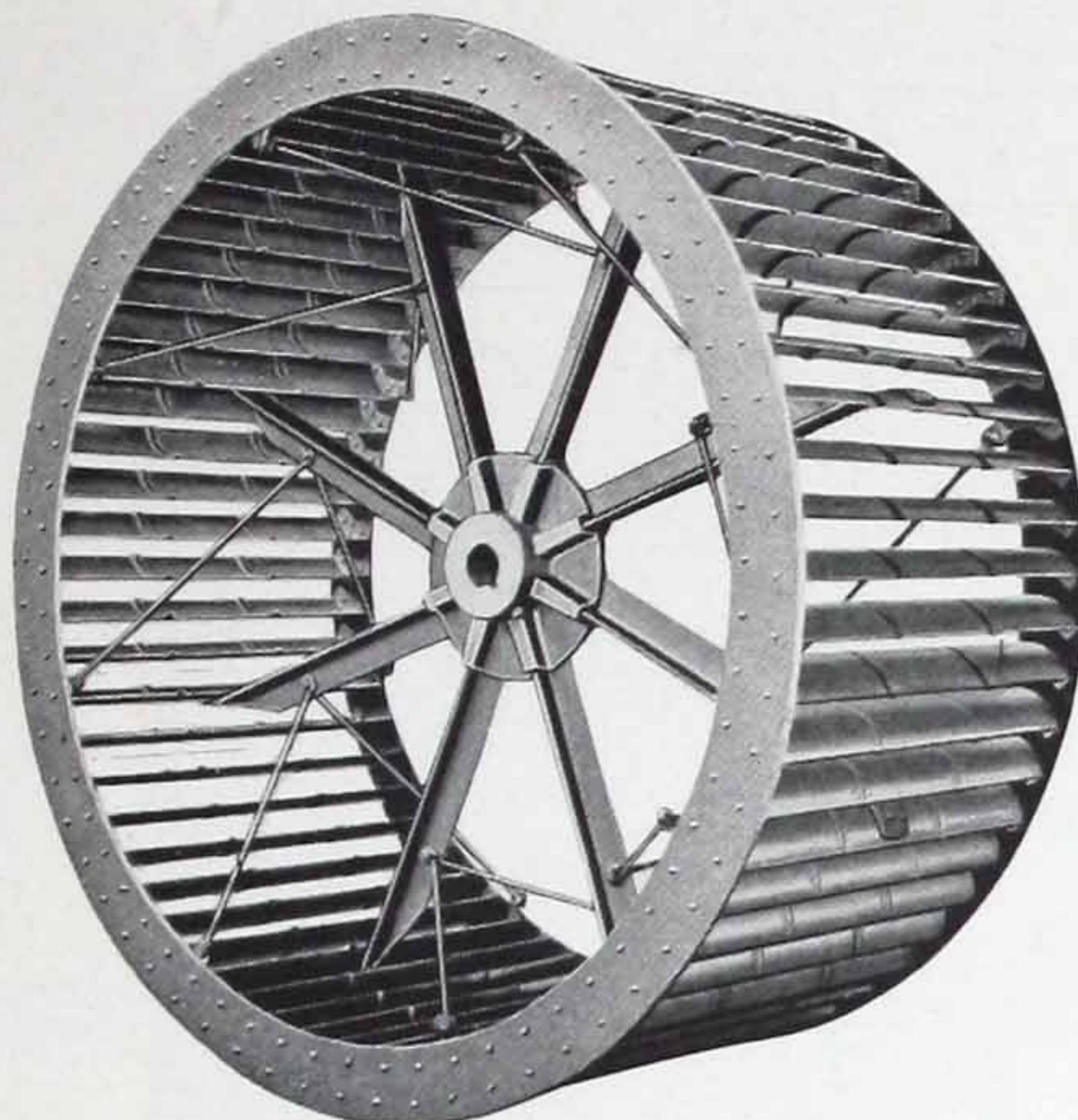


DOUBLE WIDTH HV FAN, UPTOWN THEATRE, CHICAGO, ILLINOIS.

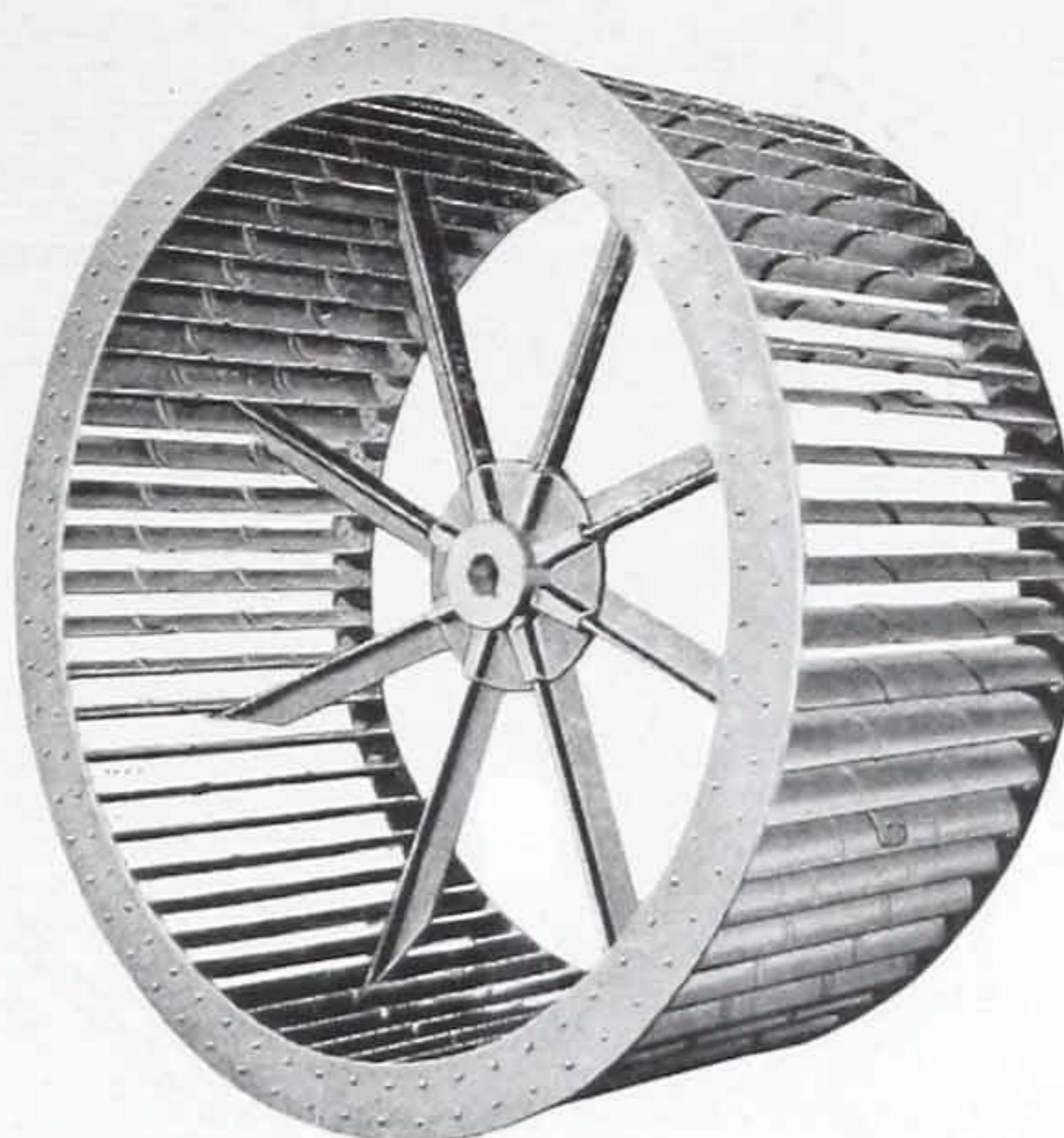
The total Clarge equipment used for ventilation and air conditioning in this magnificent theatre includes eight Type HV Fans and three Type V Washers. It is one of a long list of prominent American theatres now using HV Fans.

[TYPE HV FANS]
77% EFFICIENT

[CLARAGE]



HV WHEEL FOR FANS LARGER THAN SIZE 3
—NOTE BRACING



HV WHEEL USED IN FANS SIZES 1½ TO 3
INCLUSIVE

Features of Construction, Type HV Fan, Sizes 1½ to 9

Type HV Wheel

THE unprecedented high efficiency, low operating speed and silent performance of the Type HV Fan is due in a large measure to the design of the fan wheel. The HV Fan Wheel consists of a large number of shallow steel blades securely riveted to the side rims. The blades are specially curved and tipped forward in the direction of rotation; their form in conjunction with their number making possible the noiseless delivery of large volumes of air at low pressures with a minimum expenditure of power.

All blades are formed in dies on powerful presses and every blade for a certain size of wheel is identical in form, thickness and weight, and of sufficient strength so that no perceptible deflection will occur even under the most severe operating conditions.

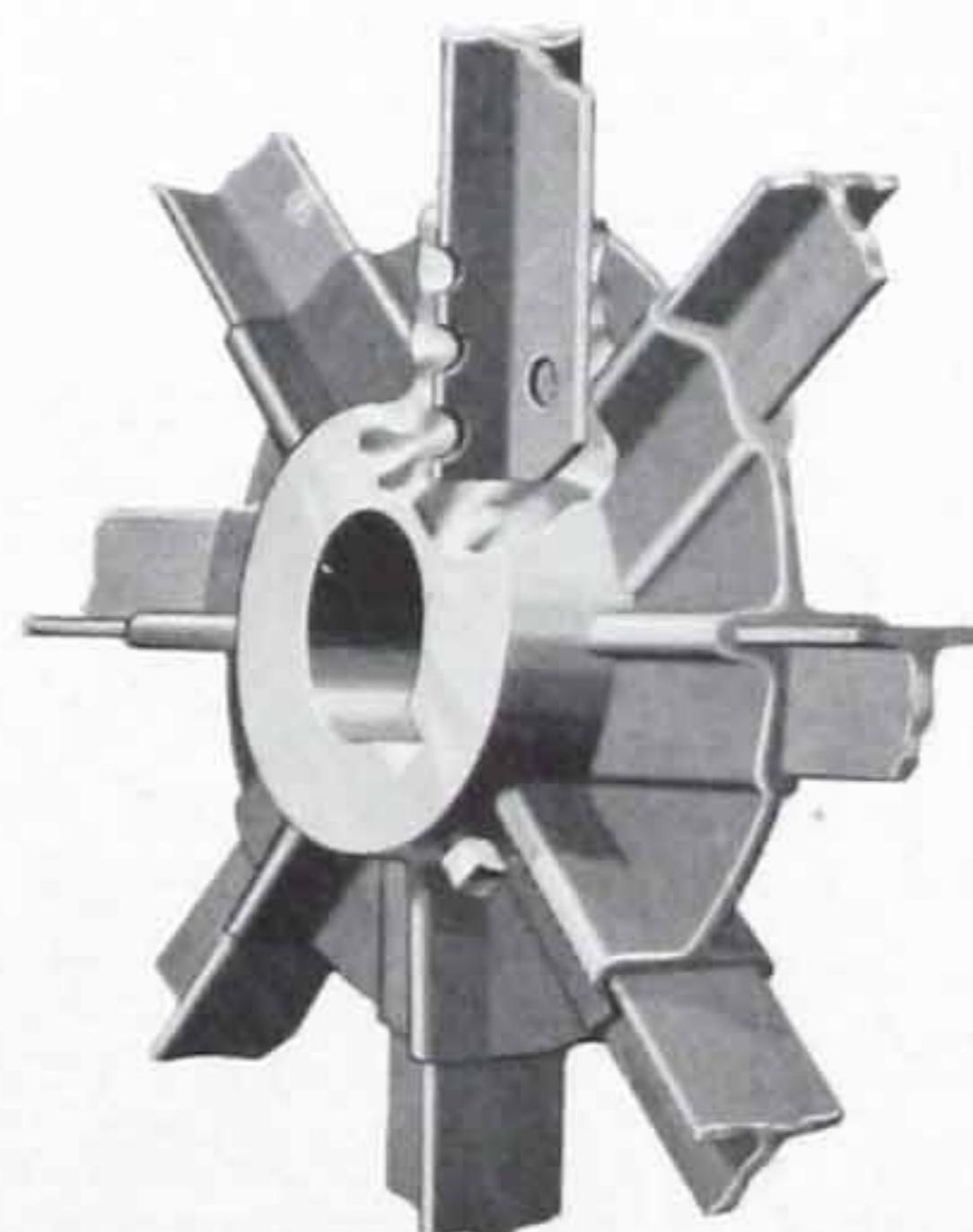
The wheel spider consisting of steel T-arms in a heavy iron hub is cast in an accurately machined metal flask which locates the arms equidistant and in a true plane. This is an excellent feature and a decided improvement over ordinary practice, since with some methods it is often necessary to bend the arms after they are cast in the hub perceptibly weakening the entire spider assembly. As a further safeguard, the part of every T-arm inserted into the cast iron hub is punched along both sides of the flange and through the center of the web to insure that the arms are permanently anchored (see illustration). To loosen an arm from the hub of a Clarage wheel would require the rupture of the hub casting through a

double shear—not even a remote possibility in fan operation.

The wheel side rims are extra heavy to insure rigid support to the blades and, in sizes No. 3½ and larger, the wheels are rigidly braced by diagonal rods running from rims to spider as shown by the illustration.

The double width, double inlet HV Fan is equipped with two single width wheels, and each wheel is built with back plate but otherwise of standard construction. The back plate permits each wheel to handle its own share of the work, thereby securing more uniform operating results.

Every wheel after assembly is carefully balanced and tested, assuring a true running wheel free from vibration. The wheel is keyed to the shaft and fitted with set screws over the key.

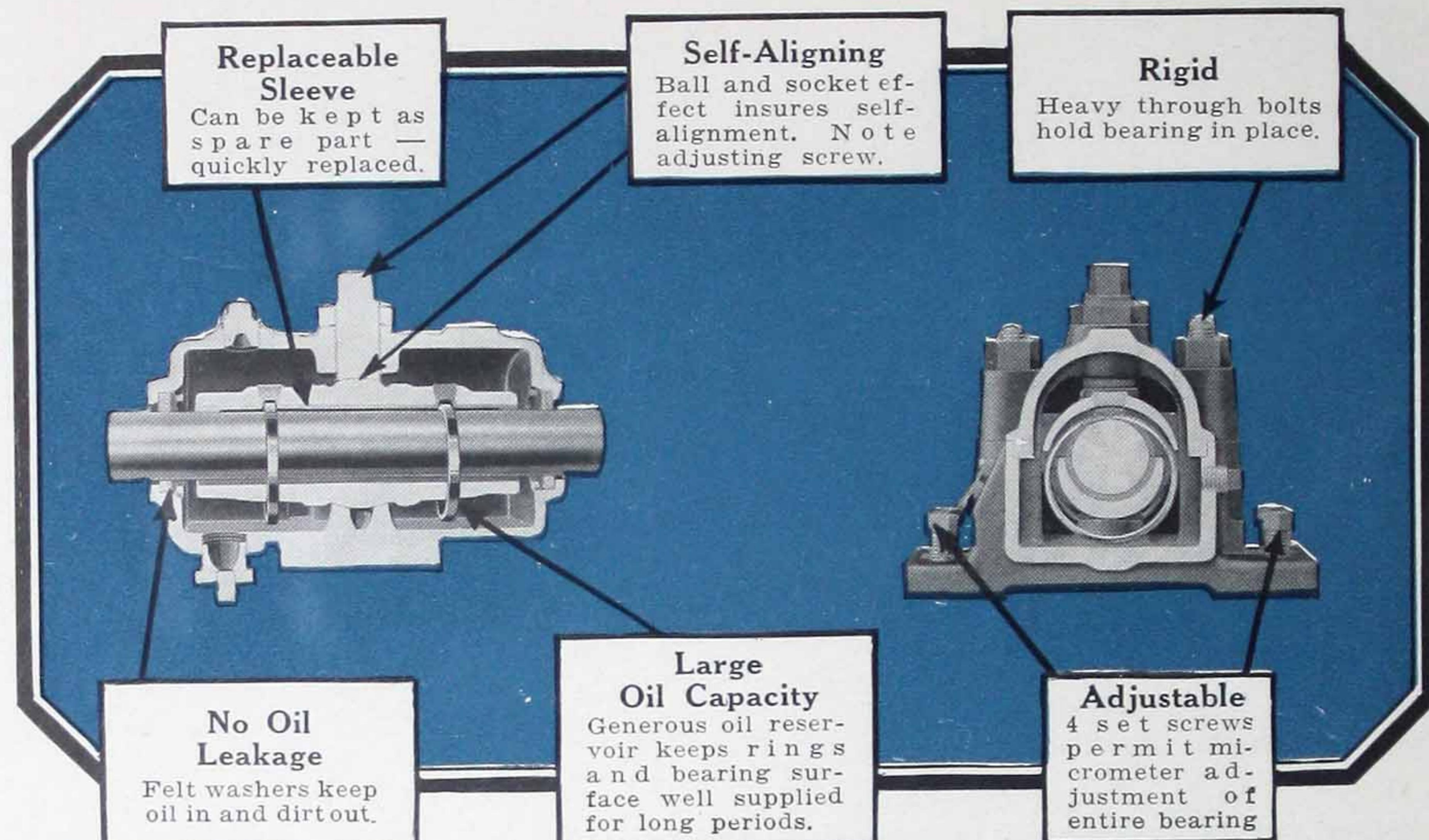


HUB AND SPIDER CONSTRUCTION

Fan Housing

The housing is built from high quality, blue annealed open hearth steel of heavy gauge, and in the larger sizes is thoroughly braced by riveting to a rigid angle and channel iron frame. Housings for Type HV Fan, size 3 and smaller, are of equally rigid construction and addi-

CLARAGE



tional strength is secured by the use of the cast iron side plates.

Outlet

A Rectangular outlet is furnished which enables the outlet duct to be readily attached with through bolts. An Inlet ring of similar construction is provided for easy attachment to the round intake duct. On sizes $3\frac{1}{2}$ and larger the housing side bracing is built and punched for attachment of rectangular ducts, if desired.

Fan Shaft

The fan shaft is made from open hearth steel accurately ground to size, and great care is taken to have it perfectly straight and cylindrical. Each shaft is properly proportioned to insure minimum deflection and to prevent any whipping action of the wheels, allowing the unit to run perfectly smooth.

Bearings

To a marked degree the established reputation of all Clarage Fan Equipment can be attributed to the high quality of the Clarage Special Bearings with which the Type HV Fan is regularly equipped. They are without doubt the best fan bearings that the market affords.

The Clarage Bearing consists of two distinct and separate parts: the inner sleeve and the outer case. The inner sleeve is split (Clarae feature) and may be easily removed and replaced without removing the fan shaft. This sleeve is held in the case in an adjustable ball and socket support which allows self-alignment in every plane and within large limits. It is

lined with best grade babbitt, and is lubricated by means of two finished oil rings which carry a liberal supply of oil to the large bearing surface from the reservoir below.

The outer bearing case is made in two parts. The upper part or cap is held in place by two bolts and when the nuts are removed may be lifted off, giving free access to the sleeve. The lower part forms an oil reservoir of unusual capacity. For instance, a $1\frac{5}{16}$ bearing, size $1\frac{3}{4}$ HV Fan, holds nearly a quart of oil, the other sizes in proportion. Compare this with the few spoonfuls held by most ring oiling bearings and you have a fair conception of the generous proportions along which these bearings have been designed. The whole outer case is built to rest on four set screws for easy adjustment as to height, but when adjusted is held rigidly to the bearing support by heavy through bolts.

Felt washers (exclusive with Clarage), fitting snugly around the shaft at each end of the bearing case, protect against the entrance of dirt and dust and prevent the escape of oil. *The Clarage Bearing is, therefore, dust-proof and oil-tight.*

Ball Bearings

At a moderate extra cost the Type HV Fan can be equipped with ball bearings. When specified the well known, dependable SKF Balls and Races are furnished. They are mounted in special cases of Clarage design which have all the desirable aligning and adjustable features mentioned previously in connection with

TYPE HV FANS
77% EFFICIENT

CLARAGE

Clarge Ring Oiling Bearing Cases. They are of liberal size, dust-proof and oil-tight.

Oiling Device

Whenever the HV Fan is furnished with a bearing in the inlet an oiling device as shown is furnished as standard equipment. This device permits the bearing to be filled to the proper level from an accessible position outside the duct work or heater connection.



CLARAGE OILING DEVICE

The large oil cup enables the oil level to be quickly determined at all times, eliminating any excuse for the bearing running dry. The top of the oil cup is adjusted to the proper level—no oil gauge is necessary, but where specified a standard sight gauge will be furnished at a small additional cost. A drain plug is located just below the filling cup to facilitate draining and washing out of the bearing.

This device is also furnished as standard equipment for the bearing on the drive side of the fan in sizes $3\frac{1}{2}$ and larger, pulley driven, as otherwise the pulley would interfere with the ease of oiling this bearing.

Bearing Supports

Bearing supports on the Type HV Fan, sizes No. 3 and smaller, are an integral part of the cast iron side plates. On the larger sizes, heavy steel plate supports, riveted to the housing side bracing and anchored to the foundation, give equally rigid support to the bearings. All bearing supports extend to the floor line, a structural feature worthy of particular attention and offered as standard equipment on Clarge Fans.

Set screws at the sides of the bearing pads, together with height adjusting screws in the base of the bearings, make possible as ready alignment of the bearings and shaft as would adjustable sole plates; through bolts make the adjustment permanent and hold the bearing securely to the seat. True shaft alignment is thus readily made and easily maintained—very important where direct connected drives are used.

Drives for Type HV Fan—Sizes $1\frac{1}{2}$ to 9

Pulley Driven

THE pulley driven HV Fan is extensively used in public building work. It is particularly adaptable where variable or unknown requirements are encountered, as the fan speed may be altered by a change in pulley size. Belt drive also makes possible a higher motor speed than if direct connected, with a resultant lower first cost for motors. Where space conditions would necessitate short pulley centers, Texrope, chain or other approved short center drives may be used.

Direct Motor Driven

The Type HV Fan when direct connected to an electric motor forms a compact unit and is desirable where space is limited. The motor is either mounted on a heavy structural steel pedestal connected to the

fan housing or cast iron side plate, or is mounted on a suitable separate pedestal of concrete built by the contractor or customer. In sizes larger than size 2, at least one fan bearing is furnished, and the motor is connected to the fan by either a solid or flexible coupling as the arrangement requires.

Engine Driven

The Type HV Fan direct connected to the Clarge Vertical Steam Engine forms an economical and dependable steam driven unit. Engine drive may be used with steam pressures as low as 25 to 40 pounds, and since the exhaust steam from the engine can be used in the heater stacks without loss of heating value, the cost of operating the fan is negligible. The modern Clarge Engine operates as simply and with as little attention as does the electric motor.

Standard Arrangements for Type HV Fan

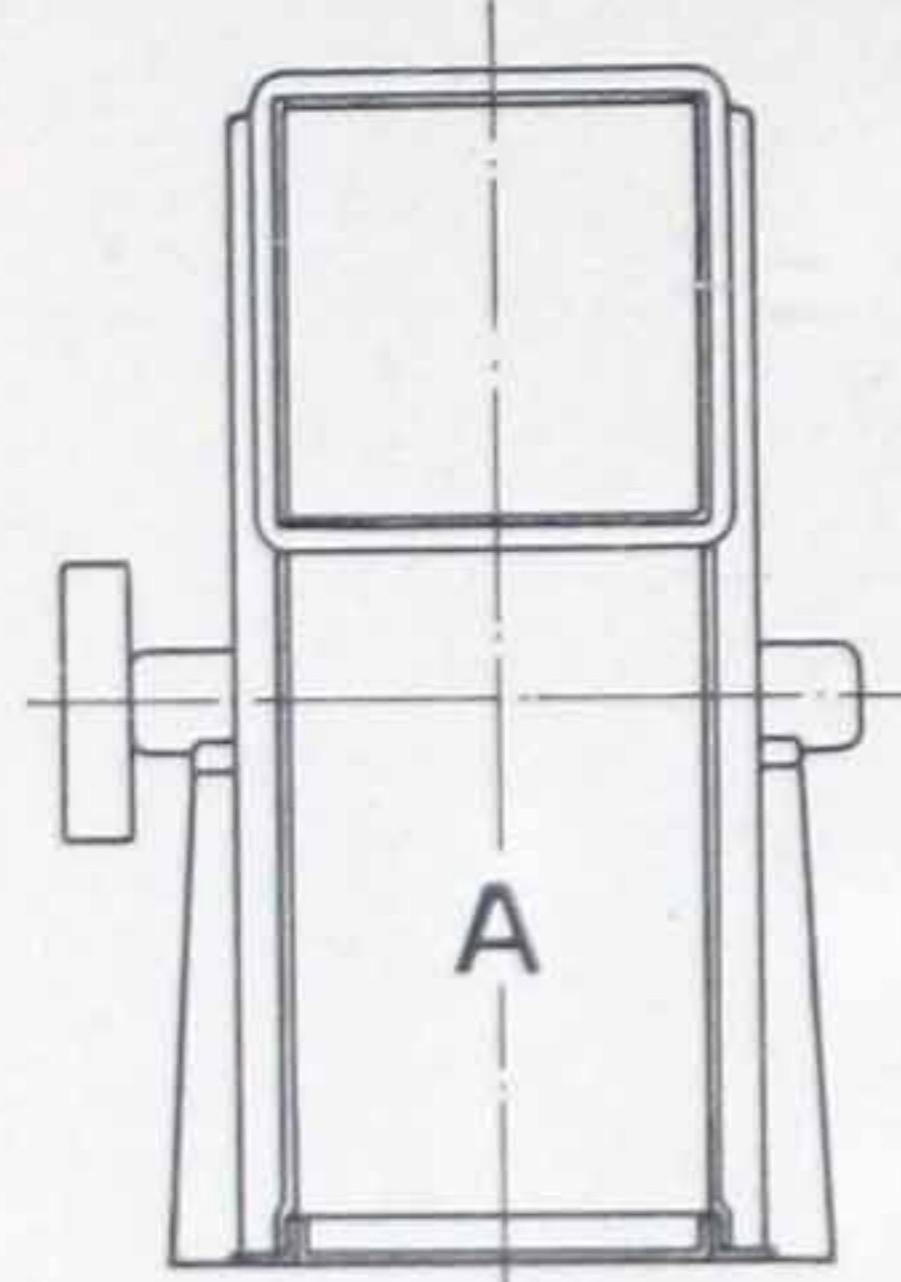
TO MEET varying installation conditions the Type HV Fan is furnished in nine Standard Arrangements as shown on the next page. For belt drive it is built single or double width, in Arrangement A; single width in Arrangement B sizes 3 and smaller; single width in Arrangement F sizes $3\frac{1}{2}$ and larger; and as double fan in Arrangements B or F. For direct connection the motor or engine mounted on an integral steel pedestal, the

fan is built single width in Arrangements E, G, H and I; double width in Arrangement G; or as double fan in Arrangements E and I. For direct connection, engine or motor mounted independently, the fan is furnished single width in Arrangements C, D, or F, or double width in Arrangements C. $\frac{7}{8}$ housed fans, built only in sizes $3\frac{1}{2}$ and larger, are furnished single width in Arrangements A, C, D, and F, and double width in Arrangements A and C.

TYPE HV FANS
77% EFFICIENT

(CLARAGE)

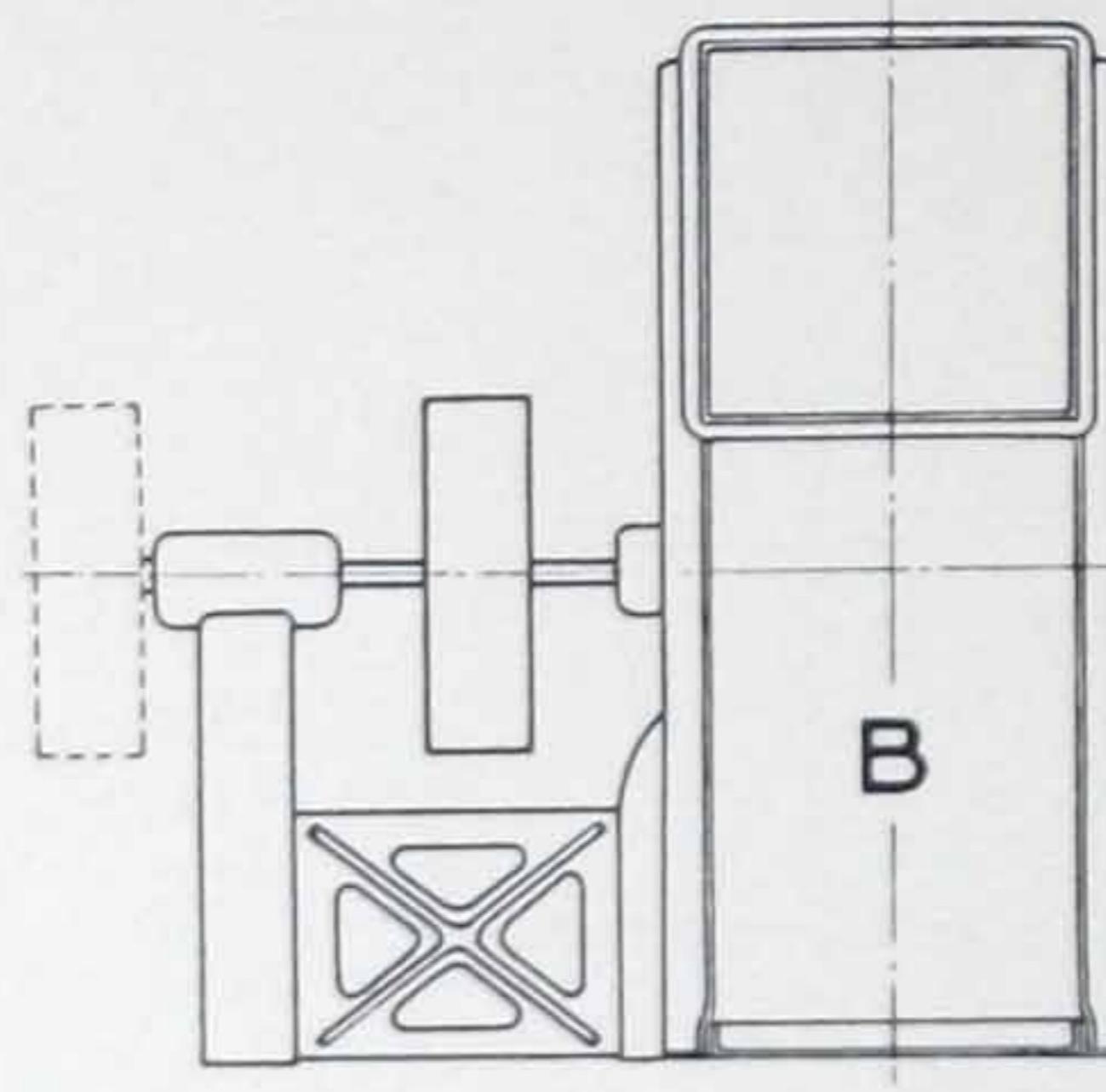
Showing Standard Arrangements for Type HV Fan— Sizes 1½ to 9



ARRANGEMENT A

Furnished with housing, wheel, shaft, two bearings and pulley.

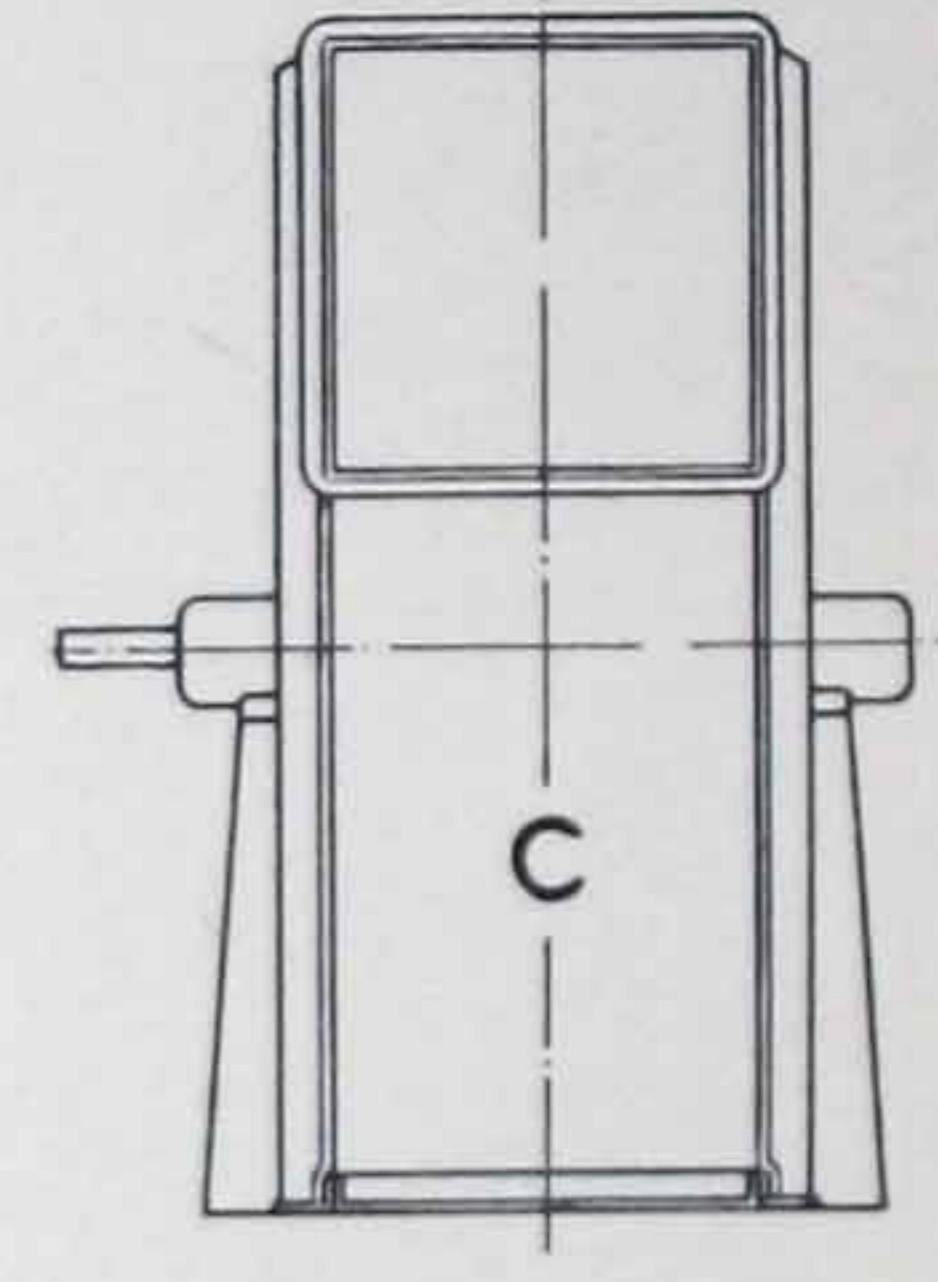
For Belt Drive.



ARRANGEMENT B

Furnished with housing, wheel, shaft, two bearings on cast iron support and pulley. (Built only up to and including size 3.)

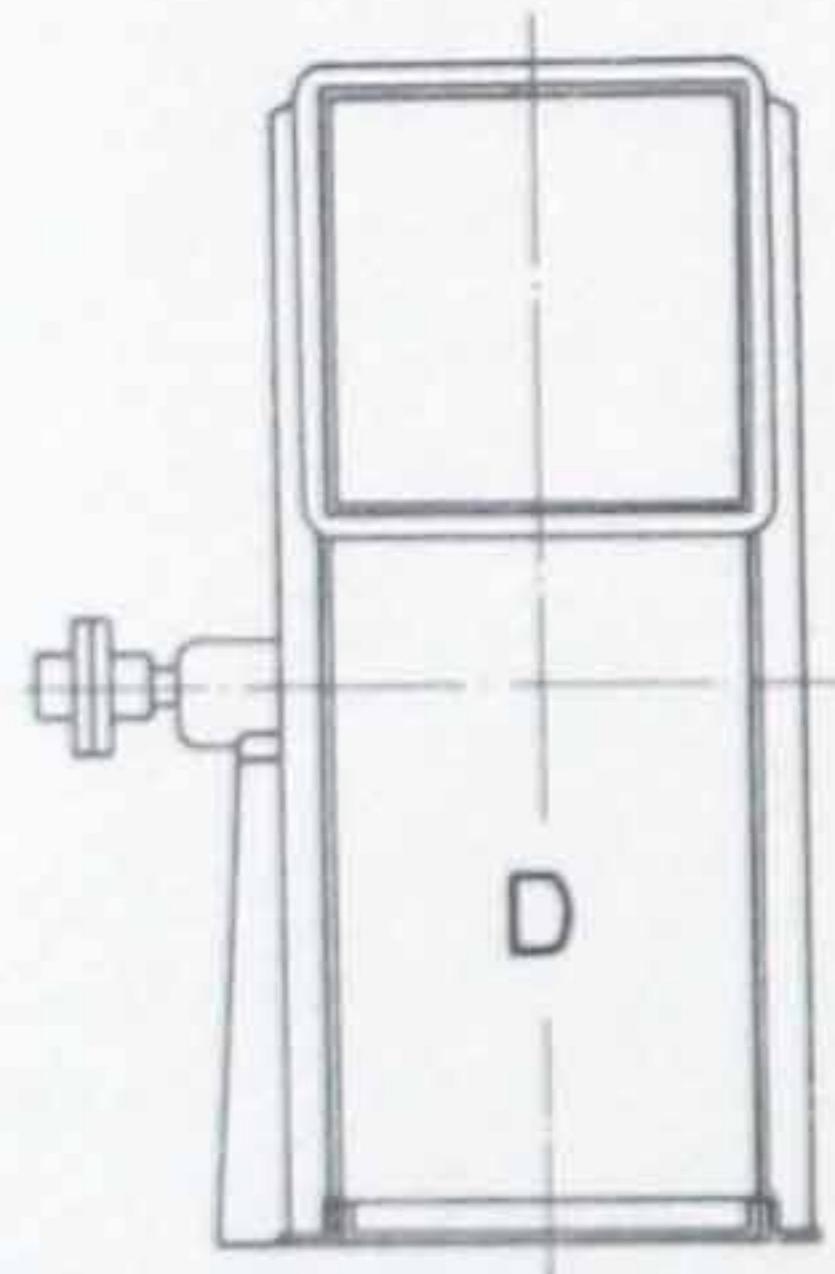
For Belt Drive.



ARRANGEMENT C

Furnished with housing, wheel, shaft and two bearings.

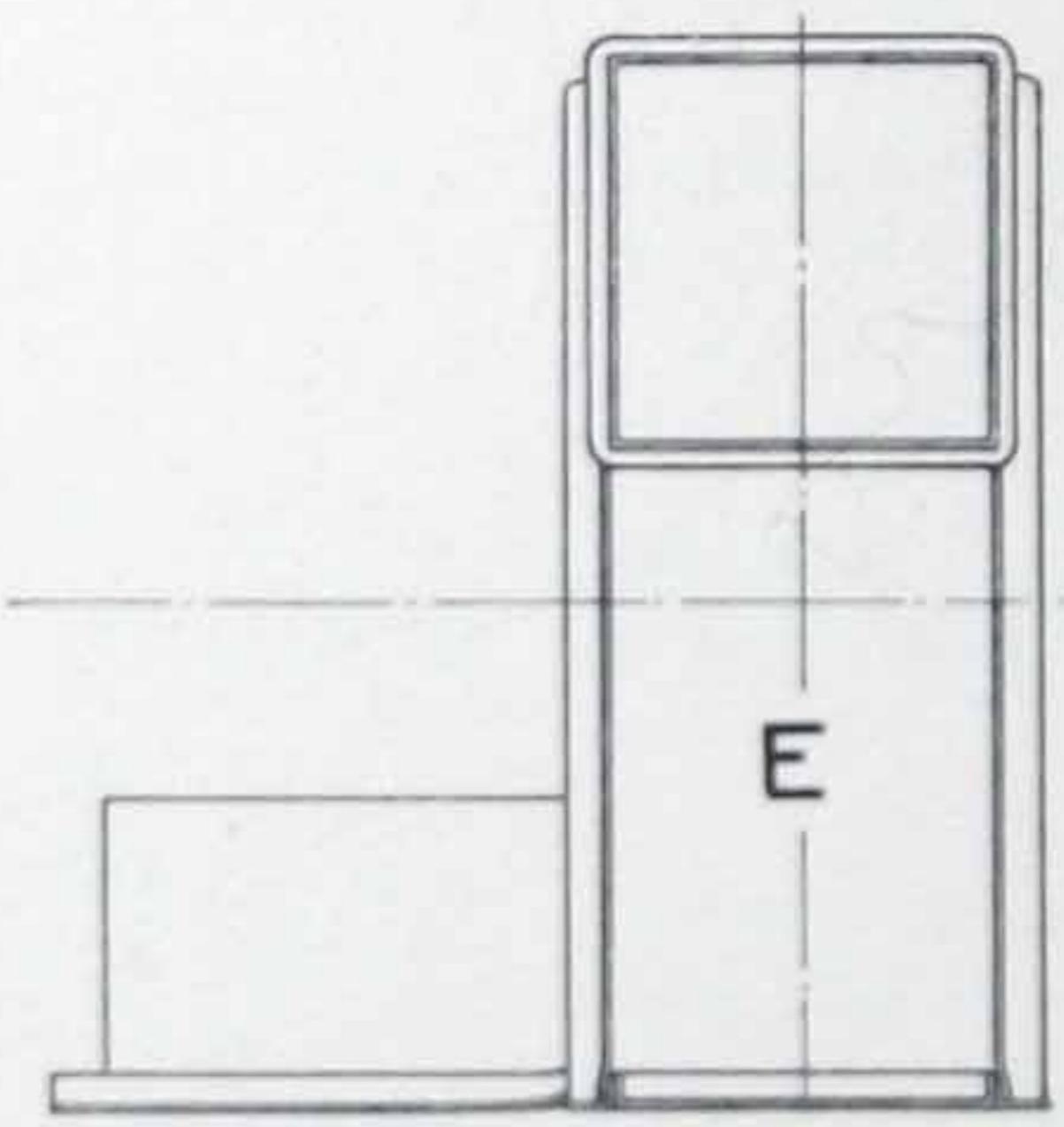
For Direct Connection, Texrope, Chain or other Approved Short Center Drive. Coupling, Special Pulley or Driven Pinion Extra.



ARRANGEMENT D

Furnished with housing, wheel, shaft, one bearing and solid coupling.

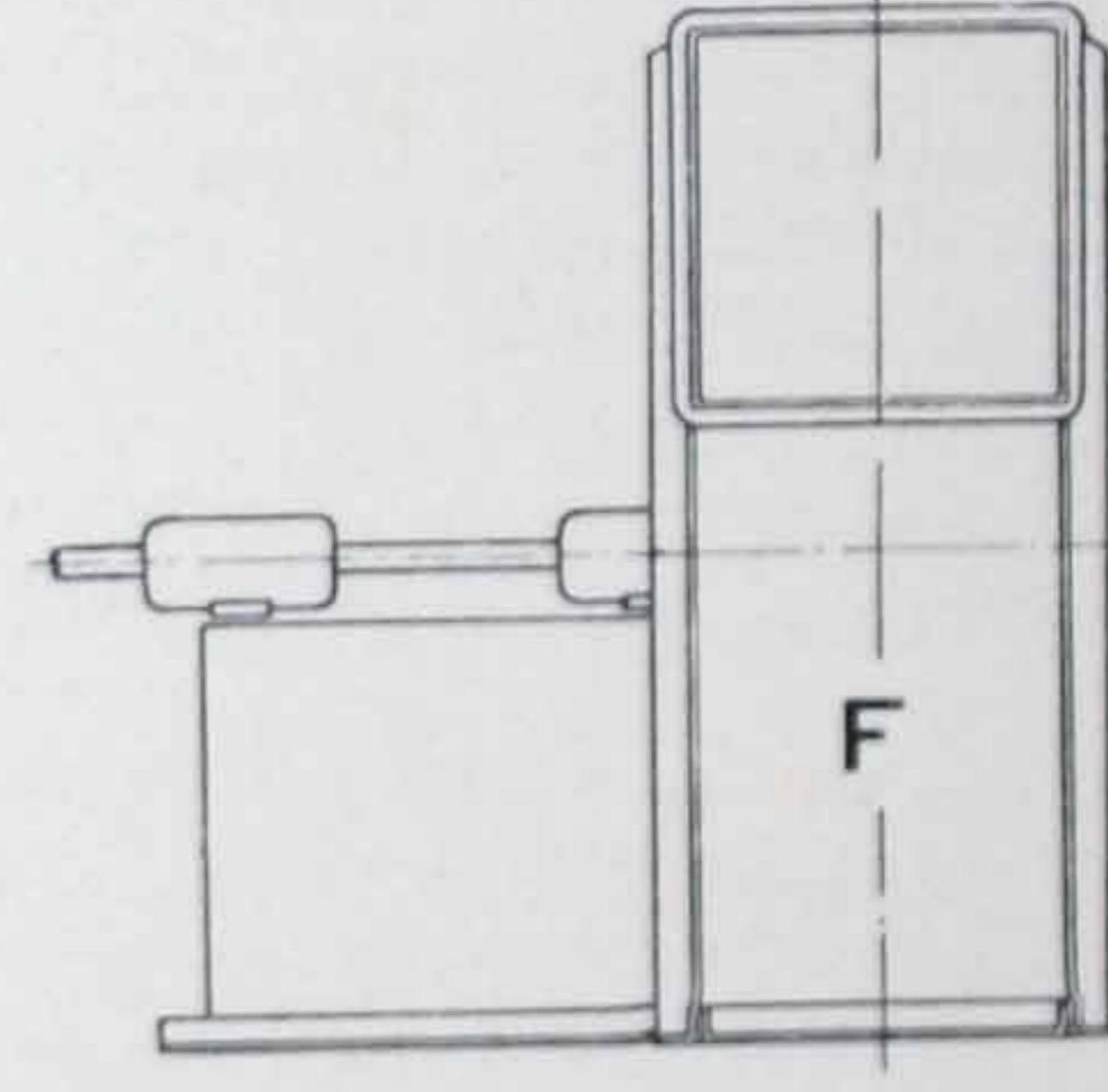
For Direct Drive.



ARRANGEMENT E

Furnished with housing, wheel, and structural steel pedestal for motor. (Built only up to and including size 2½.)

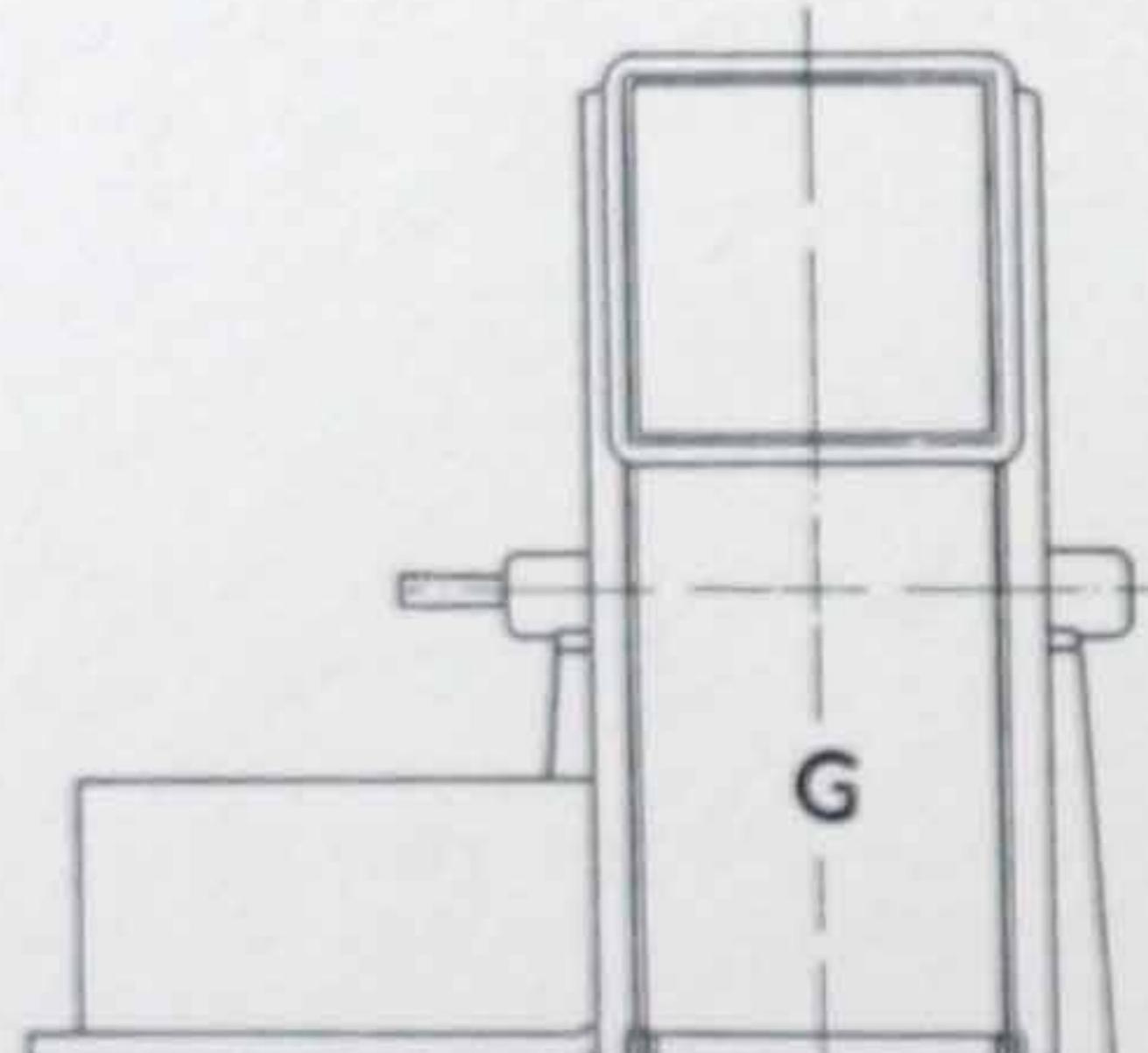
For Direct Drive with fan wheel mounted on extended motor shaft.



ARRANGEMENT F

Furnished with housing, wheel, shaft, and two bearings mounted on structural steel pedestal. (Built size 3½ and larger.)

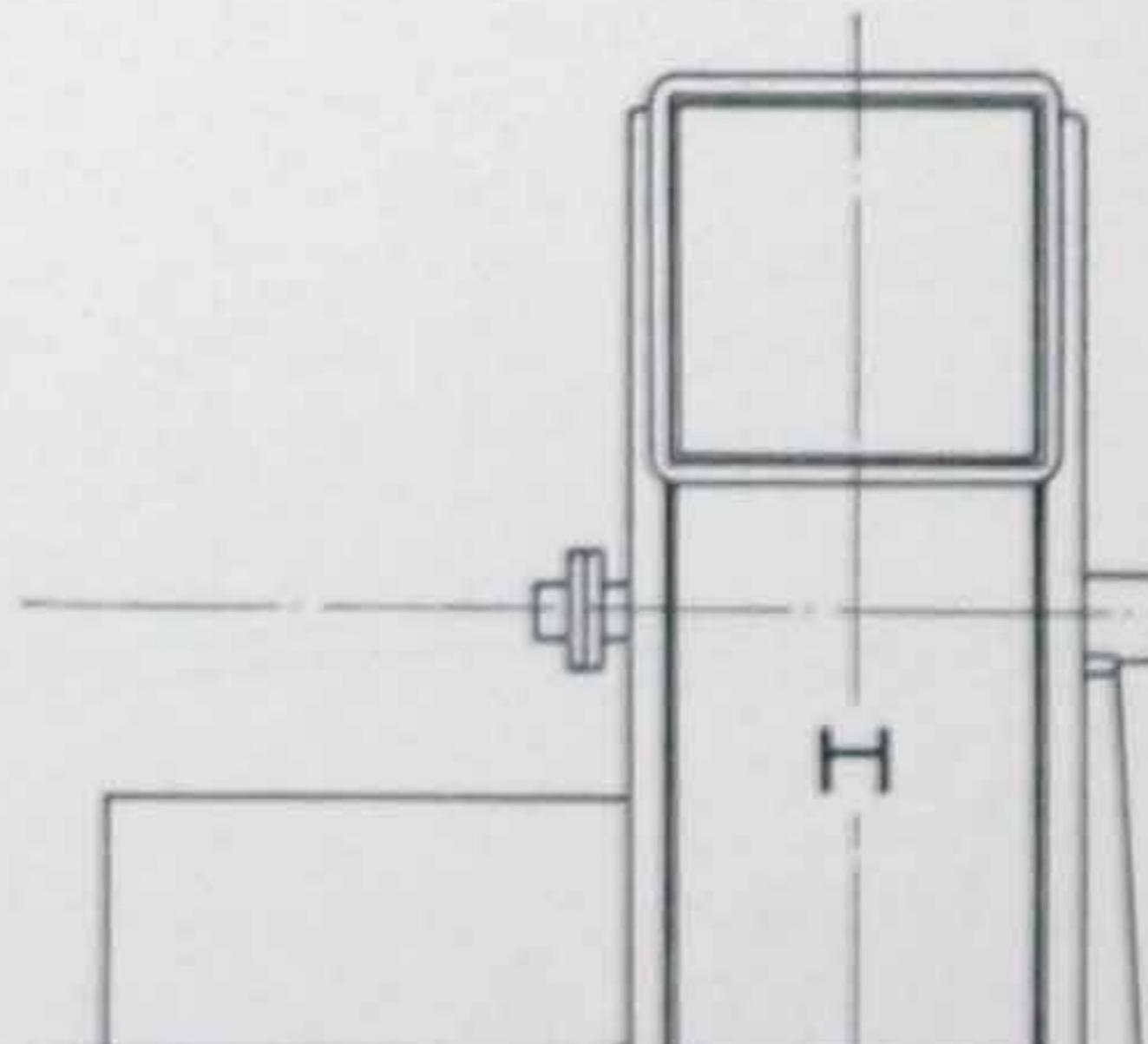
For Belt or Approved Short Center Drive, and Direct Connection. Pulley, Driven Pinion or Coupling extra.



ARRANGEMENT G

Furnished with housing, wheel, shaft, two bearings and structural steel pedestal for driver.

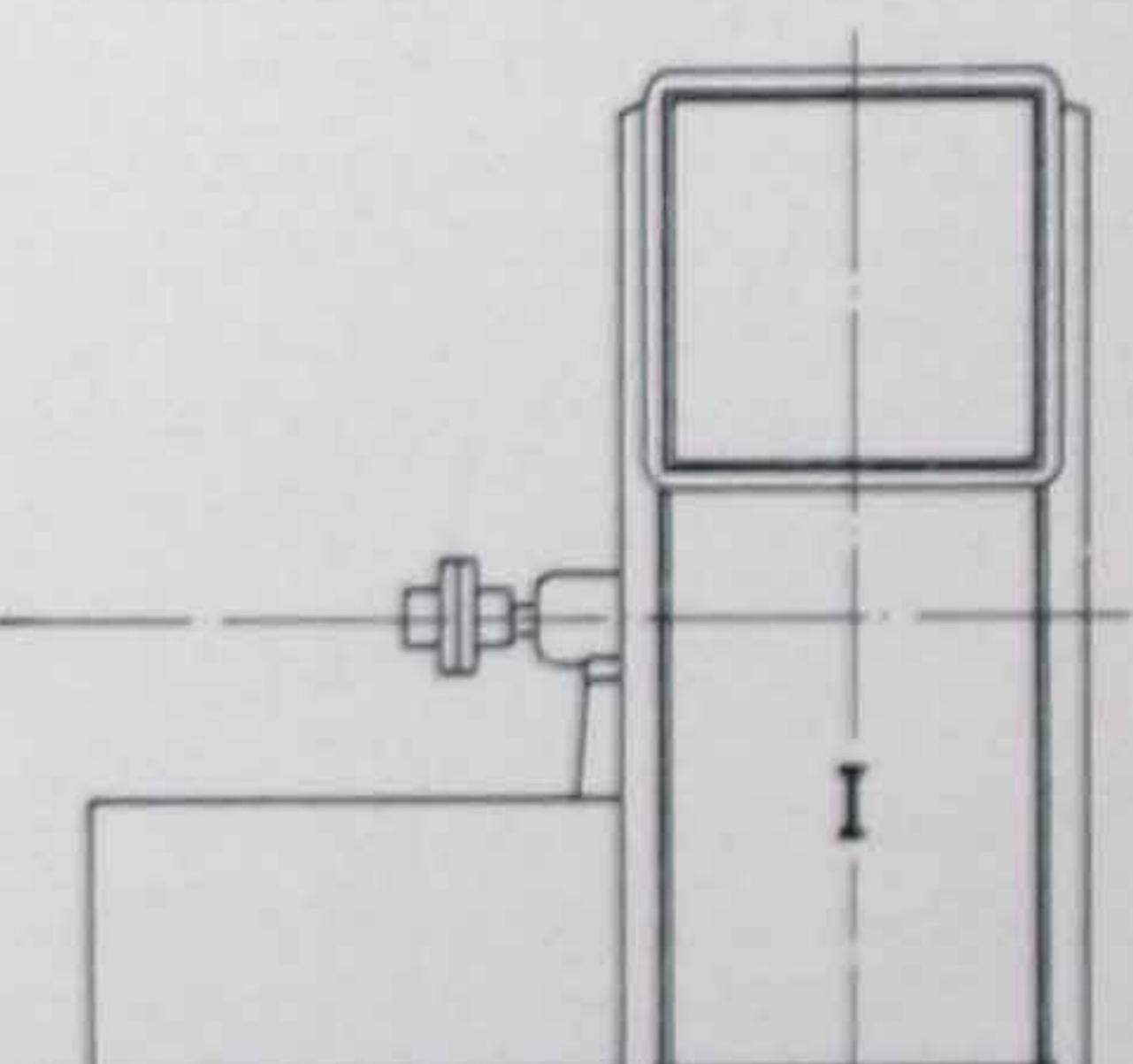
For Direct Drive. Coupling extra.



ARRANGEMENT H

Furnished with housing, wheel, shaft, one bearing, solid coupling and structural steel pedestal for driver.

For Direct Drive.



ARRANGEMENT I

Furnished with housing, wheel, shaft, one bearing, solid coupling and structural steel pedestal for driver.

For Direct Drive.

[CLARAGE]

General Data and Weights for Type HV Fan— Sizes 1½ to 9

Single Width Fan — Arrangements A, B, and F

Size of Fan	Size of Outlet	Outside Diam. of Inlet	Extreme Dimensions for Full Housed Top Horizontal Discharge Fan					Wheel		Pulley		Bearing Diam.		Weight in Pounds	
			Height	Length	Width		Diam.	Full Width	Diam.	Width	Arr. A	Arr. Band F	Arr. A	Arr. Band F	
					Arr. A	Arr. B and F									
1½	14 $\frac{3}{16}$ x 19 $\frac{1}{16}$	20 $\frac{1}{4}$	40 $\frac{1}{2}$	30 $\frac{3}{4}$	26 $\frac{3}{4}$	36 $\frac{1}{2}$	19 $\frac{1}{2}$	9 $\frac{1}{4}$	8	4	1 $\frac{3}{16}$	1 $\frac{3}{16}$	340	400	
1¾	17 $\frac{5}{16}$ x 22 $\frac{1}{4}$	23 $\frac{3}{4}$	46 $\frac{3}{4}$	35	30	42	22 $\frac{3}{4}$	10 $\frac{3}{4}$	10	4	1 $\frac{5}{16}$	1 $\frac{5}{16}$	440	500	
2	19 $\frac{1}{16}$ x 25 $\frac{1}{4}$	27	53	39	33 $\frac{3}{4}$	45	26	12 $\frac{1}{4}$	14	5	1 $\frac{7}{16}$	1 $\frac{7}{16}$	600	660	
2¼	22 $\frac{1}{8}$ x 28 $\frac{5}{8}$	30 $\frac{5}{8}$	59 $\frac{3}{4}$	43 $\frac{1}{2}$	37 $\frac{1}{2}$	50 $\frac{3}{4}$	29 $\frac{1}{4}$	13 $\frac{3}{4}$	16	5	1 $\frac{11}{16}$	1 $\frac{11}{16}$	730	825	
2½	24 $\frac{9}{16}$ x 31 $\frac{3}{4}$	34	65 $\frac{3}{4}$	47 $\frac{3}{4}$	40 $\frac{1}{2}$	53 $\frac{3}{4}$	32 $\frac{1}{2}$	15 $\frac{1}{4}$	18	5	1 $\frac{11}{16}$	1 $\frac{11}{16}$	900	1100	
3	29 $\frac{7}{16}$ x 38 $\frac{1}{8}$	40 $\frac{3}{4}$	78 $\frac{3}{4}$	55 $\frac{1}{2}$	45 $\frac{1}{2}$	62 $\frac{1}{4}$	39	18 $\frac{1}{4}$	22	6	1 $\frac{15}{16}$	1 $\frac{15}{16}$	1230	1625	
3½	34 $\frac{1}{2}$ x 44 $\frac{1}{2}$	47 $\frac{1}{2}$	79 $\frac{1}{4}$	65 $\frac{1}{2}$	57 $\frac{3}{4}$	72	45 $\frac{1}{2}$	21 $\frac{3}{8}$	28	6	2 $\frac{3}{16}$	2 $\frac{3}{16}$	1700	1750	
4	39 $\frac{3}{8}$ x 50 $\frac{3}{4}$	54 $\frac{1}{2}$	90 $\frac{1}{2}$	74 $\frac{1}{2}$	64 $\frac{1}{2}$	77 $\frac{3}{4}$	52	24 $\frac{3}{8}$	36	7	2 $\frac{7}{16}$	2 $\frac{7}{16}$	2150	2225	
4½	44 $\frac{1}{4}$ x 57 $\frac{1}{8}$	61	101 $\frac{1}{2}$	83 $\frac{1}{4}$	70 $\frac{1}{2}$	82 $\frac{1}{2}$	58 $\frac{1}{2}$	27 $\frac{3}{8}$	42	7	2 $\frac{11}{16}$	2 $\frac{11}{16}$	2650	2750	
5	49 $\frac{1}{8}$ x 63 $\frac{1}{2}$	68	112 $\frac{3}{4}$	92 $\frac{1}{4}$	78	96 $\frac{1}{4}$	65	30 $\frac{3}{8}$	48	8	2 $\frac{15}{16}$	2 $\frac{15}{16}$	3200	3350	
5½	54 $\frac{1}{8}$ x 70	75	124 $\frac{1}{4}$	101 $\frac{1}{2}$	83 $\frac{1}{2}$	99 $\frac{1}{2}$	71 $\frac{1}{2}$	33 $\frac{3}{8}$	54	8	3 $\frac{3}{16}$	3 $\frac{3}{16}$	3750	3975	
6	59 x 75 $\frac{1}{4}$	81 $\frac{1}{2}$	134	110 $\frac{1}{2}$	92 $\frac{1}{2}$	112 $\frac{1}{4}$	78	36 $\frac{3}{8}$	62	10	3 $\frac{11}{16}$	3 $\frac{11}{16}$	4270	4800	
6½	63 $\frac{7}{8}$ x 82 $\frac{1}{2}$	88 $\frac{1}{2}$	146 $\frac{3}{4}$	119 $\frac{1}{2}$	98 $\frac{1}{4}$	119 $\frac{1}{4}$	84 $\frac{1}{2}$	39 $\frac{3}{8}$	68	10	3 $\frac{15}{16}$	3 $\frac{15}{16}$	5350	7200	
7	68 $\frac{3}{4}$ x 89	95	157 $\frac{3}{4}$	128 $\frac{1}{2}$	105	130 $\frac{1}{4}$	91	42 $\frac{1}{2}$	74	12	3 $\frac{15}{16}$	4 $\frac{7}{16}$	7500	9500	
7½	73 $\frac{5}{8}$ x 95 $\frac{1}{2}$	102	168 $\frac{3}{4}$	137 $\frac{1}{4}$	111 $\frac{1}{2}$	136 $\frac{1}{2}$	97 $\frac{1}{2}$	45 $\frac{1}{2}$	80	12	4 $\frac{7}{16}$	4 $\frac{15}{16}$	8410	10400	
8	78 $\frac{1}{2}$ x 101 $\frac{1}{2}$	109	179 $\frac{1}{4}$	146 $\frac{1}{2}$	118 $\frac{1}{4}$	148	104	48 $\frac{1}{2}$	86	14	4 $\frac{7}{16}$	4 $\frac{15}{16}$	10440	12600	
8½	83 $\frac{1}{2}$ x 108	116	192 $\frac{1}{4}$	155 $\frac{1}{2}$	127 $\frac{1}{4}$	166	110 $\frac{1}{2}$	51 $\frac{1}{2}$	92	16	4 $\frac{15}{16}$	5 $\frac{7}{16}$	12500	14800	
9	88 $\frac{3}{8}$ x 114 $\frac{1}{2}$	122	203	164 $\frac{1}{4}$	134	180	117	54 $\frac{1}{2}$	98	18	4 $\frac{15}{16}$	5 $\frac{7}{16}$	14700	17000	

Note: Fans built in Arrangement B up to and including size 3; in the larger sizes in Arrangement F instead of B.

Double Width Fan — Arrangement A

Size of Fan	Size of Outlet	Outside Diam. of Inlet	Extreme Dimensions for Full Housed Top Horizontal Discharge Fan					One Wheel		Pulley		Bear. Diam.	Weight in Pounds
			Height	Length	Width	Diam.	Full Width	Diam.	Width				
1½	29 $\frac{7}{16}$ x 19 $\frac{1}{16}$	20 $\frac{1}{4}$	40 $\frac{1}{2}$	30 $\frac{3}{4}$	42 $\frac{1}{4}$	19 $\frac{1}{2}$	9 $\frac{1}{4}$	8	5	1 $\frac{3}{16}$	490		
1¾	34 $\frac{3}{8}$ x 22 $\frac{1}{4}$	23 $\frac{3}{4}$	46 $\frac{3}{4}$	35	47 $\frac{1}{4}$	22 $\frac{3}{4}$	10 $\frac{3}{4}$	10	5	1 $\frac{5}{16}$	610		
2	34 $\frac{3}{16}$ x 25 $\frac{1}{4}$	27	53	39	53	26	12 $\frac{1}{4}$	14	6	1 $\frac{7}{16}$	760		
2¼	44 $\frac{1}{16}$ x 28 $\frac{5}{8}$	30 $\frac{5}{8}$	59 $\frac{3}{4}$	43 $\frac{1}{2}$	58 $\frac{3}{4}$	29 $\frac{1}{4}$	13 $\frac{3}{4}$	16	6	1 $\frac{11}{16}$	925		
2½	48 $\frac{15}{16}$ x 31 $\frac{3}{4}$	34	65 $\frac{3}{4}$	47 $\frac{3}{4}$	65 $\frac{1}{2}$	32 $\frac{1}{2}$	15 $\frac{1}{4}$	18	7	1 $\frac{11}{16}$	1125		
3	58 $\frac{11}{16}$ x 38 $\frac{1}{8}$	40 $\frac{3}{4}$	78 $\frac{3}{4}$	55 $\frac{1}{2}$	76 $\frac{3}{4}$	39	18 $\frac{1}{4}$	22	8	1 $\frac{15}{16}$	1700		
3½	68 $\frac{5}{8}$ x 44 $\frac{1}{2}$	47 $\frac{1}{2}$	79 $\frac{1}{4}$	65 $\frac{1}{2}$	94 $\frac{3}{4}$	45 $\frac{1}{2}$	21 $\frac{3}{8}$	28	8	2 $\frac{3}{16}$	2500		
4	78 $\frac{3}{8}$ x 50 $\frac{3}{4}$	54 $\frac{1}{2}$	90 $\frac{1}{2}$	74 $\frac{1}{2}$	107 $\frac{1}{4}$	52	24 $\frac{3}{8}$	36	10	2 $\frac{7}{16}$	2425		
4½	88 $\frac{1}{8}$ x 57 $\frac{1}{8}$	61	101 $\frac{1}{2}$	83 $\frac{1}{4}$	118	58 $\frac{1}{2}$	27 $\frac{3}{8}$	42	10	2 $\frac{15}{16}$	4450		
5	97 $\frac{7}{8}$ x 63 $\frac{1}{2}$	68	112 $\frac{3}{4}$	92 $\frac{1}{4}$	129 $\frac{3}{4}$	65	30 $\frac{3}{8}$	48	12	3 $\frac{3}{16}$	5550		
5½	107 $\frac{3}{4}$ x 70	75	124 $\frac{1}{4}$	101 $\frac{1}{2}$	141 $\frac{3}{4}$	71 $\frac{1}{2}$	33 $\frac{3}{8}$	54	12	3 $\frac{7}{16}$	6740		
6													

[CLARAGE]

Standard Specifications on Type HV Fan, Sizes 1½ and Larger, for Use of Architect and Engineer

1.—Furnish and erect where shown on plans a No. _____ Clarage Type HV Multiblade Fan (single or double) _____ inlet; (single or double) _____ width, having a capacity of _____ cubic feet of air per minute against a resistance (static pressure) of _____ inches water gauge. This fan shall operate at approximately _____ R. P. M., with a velocity through the fan outlet not to exceed _____ feet per minute and a maximum horsepower not greater than _____.

2.—The housing shall be built of _____ gauge steel plate (or cast iron) rigidly braced with _____ angle irons (or cast iron side plates) secured in an approved manner.

Tables of gauges and bracing depending upon size.

Size of Fan	Gauge of Housing	Method of Bracing
1½ to 3 3½	No. 14 No. 13	Cast iron side plates 2"x3"x $\frac{1}{4}$ " angles
4 to 7	No. 12	{ 2"x3"x $\frac{1}{4}$ " or 1 $\frac{1}{2}$ "x3 $\frac{1}{2}$ "x $\frac{1}{4}$ " angles
6½ to 8	No. 11	{ 2 $\frac{1}{2}$ "x3 $\frac{1}{2}$ "x $\frac{1}{4}$ " or 3"x4"x $\frac{5}{16}$ " angles
8½ and larger	No. 11	3"x5"x $\frac{3}{8}$ " angles

3.—The wheel shall consist of a suitable cast iron hub and T-iron spider cen-

trally located in the wheel, and a series of blades curved forward in the direction of rotation and riveted to annular steel plate rings or side rims. Wheels 45½ inches and larger shall be braced by 16 tie rods bolted from spider arms to rims.

They shall be accurately balanced and shall run without noise or vibration.

4.—The bearing shall consist of two distinct parts, the inner babbitted sleeves and the outer case. The inner sleeves shall be split and easily removed or replaced without disturbing the shaft. At each end of the outer case felt washers shall be placed to prevent oil from being drawn out or the dirt from getting in. Lubrication shall be obtained by two oil rings. The bearing shall be securely bolted to a support which extends to the floor line and shall be self-aligning and self-adjusting in a vertical and horizontal plane.

There shall be provided a suitable oiling device so that the bearing in the inlet may be oiled outside of the air flow.

5.—The shaft shall be of open hearth steel, key seated, ground and polished to exact diameter.

[CLARAGE]

Performance Tables, Pages 20-37

THE Performance Tables are computed from tests conducted strictly in accordance with the Standard Test Code. They are guaranteed by the Clarage Company for standard conditions—air at 70 degrees Fahrenheit and at barometric pressure of 29.92 inches.

The horse power ratings given are net. In determining the size of motor or engine required an allowance should be made to safeguard against the possibility of overloading the driver. It should also be noted that even at a constant speed it is possible to deliver a much larger volume, when the pressure against which the fan operates is less than estimated, and that under such conditions the power requirement is increased.

The pressures which the fan must maintain depend upon the resistance offered to the flow of the air by the piping system, heater coil, air washer, etc.

For Typical Installations figure as follows for static pressures:

Public Buildings:

Ventilation only, $\frac{3}{8}$ " to $\frac{1}{2}$ ".
Heating and Ventilating, $\frac{1}{2}$ " to 1".
Heating and Ventilating with Air
Washers, $\frac{3}{4}$ " to $1\frac{1}{4}$ ".

Factories or Similar Buildings:

Heating, $\frac{3}{4}$ " to $1\frac{1}{2}$ ", Average $1\frac{1}{4}$ ".
Heating and Ventilating with Air
Washers, $1\frac{1}{4}$ " to 2".

The double width, double inlet HV Fan delivers twice the volume of air at the same speed and same pressure as does a single width, single inlet HV Fan of corresponding size, taking twice the brake horse power to drive. When figuring double width fans always use the Performance Tables given for single width, single inlet fans. Note example which follows.

Example:

No. $3\frac{1}{2}$ Single Width, Single Inlet
HV Fan (see Table top of page 26.)

Volume—15,825 C. F. M.

Pressure—1-inch S. P.

Speed—233 R. P. M.

Brake Horse Power—3.80 B. H. P.

No. $3\frac{1}{2}$ Double Width, Double Inlet HV Fan.

Volume—

$15,825 \text{ C.F.M.} \times 2 = 31,650 \text{ C.F.M.}$

Pressure—1-inch S. P.

Speed—233 R. P. M.

Brake Horse Power—

$3.80 \text{ B.H.P.} \times 2 = 7.60 \text{ B.H.P.}$

Dimension Charts, Pages 38-46

THE Dimension Charts furnish detailed information for Clarage Type HV Fans in such arrangements and for such directions of discharge as are most commonly used in ventilating and air conditioning work. These dimensions which are necessary and essential to

the planning and the laying out of a fan system have been included. While the dimensions given are sufficiently accurate for all preliminary work, they should not be used for construction purposes. At the time an order is received certified drawings will be furnished.

Clarge Engineering Service

IF THE information contained in this Reference Book does not solve your problem, ask for the co-operation of a Clarage engineer. With Sales Engineering Offices in all principal cities, the Clarage Company is pre-

pared to give you prompt, authoritative service. Without obligation, a Clarage engineer will submit a complete recommendation and cost estimate covering equipment to meet your requirements.

[TYPE HV FANS]
77% EFFICIENT

(CLARAGE)

No. 1½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1½" S. P.			3½" S. P.			5½" S. P.			7½" S. P.			F' S. P.			1¾" S. P.			1½" S. P.			2" S. P.			2½" S. P.			3" S. P.				
		R. P. M.	B. P. M.	R. B.	R. P. M.																												
1,935	1000	302	15	345	19	392	29	433	33	477	38	510	47	549	55	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
2,129	1100	314	18	355	21	402	31	441	37	479	43	510	47	549	59	614	74	76	93	93	93	93	93	93	93	93	93	93	93	93	93	93	
2,322	1200	327	22	368	28	427	31	479	43	510	47	549	59	614	80	676	86	676	1.02	731	1.21	731	1.21	731	1.21	731	1.21	731	1.21	731	1.21		
2,516	1300	341	27	378	31	412	36	448	41	484	48	516	53	549	59	614	74	76	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
2,709	1400	358	31	392	35	426	40	451	46	490	54	520	53	549	66	614	72	614	86	676	1.02	731	1.21	731	1.21	731	1.21	731	1.21	731	1.21		
2,903	1500	372	36	407	41	438	47	467	53	500	58	526	64	557	72	614	86	676	1.02	731	1.21	731	1.21	731	1.21	731	1.21	731	1.21				
3,096	1600	388	41	422	49	451	54	480	59	510	66	535	72	559	78	618	93	676	1.13	726	1.28	730	1.46	730	1.46	730	1.46	730	1.46				
3,289	1700	407	50	439	55	465	60	490	66	520	74	543	80	569	87	618	1.01	676	1.22	726	1.36	775	1.53	868	1.90	868	1.90	868	1.90				
3,482	1800	425	57	457	63	480	68	503	75	530	83	555	91	579	97	628	1.13	683	1.30	726	1.46	775	1.65	864	2.03	955	2.48	955	2.48				
3,677	1900	441	72	496	78	518	85	545	92	567	99	594	1.09	634	1.22	690	1.42	735	1.55	775	1.73	864	2.15	951	2.60	951	2.71						
3,869	2000	459	81	510	87	531	95	559	1.02	584	1.11	603	1.19	617	1.32	700	1.51	740	1.69	780	1.86	864	2.29	951	2.71	951	3.00						
4,056	2200	477	81	485	81	510	87	531	95	559	1.26	608	1.32	628	1.42	668	1.55	716	1.78	755	1.98	790	2.17	870	2.58	951	3.00						
4,643	2400	514	112	564	1.12	588	1.17	588	1.26	608	1.32	628	1.42	668	1.55	716	1.78	755	1.98	790	2.17	870	2.58	951	3.00								
5,030	2600	532	125	588	1.25	612	1.35	623	1.44	644	1.53	663	1.60	683	2.04	720	2.23	759	2.46	790	2.62	824	2.83	895	3.29	965	3.74						
5,417	2800	550	141	612	1.41	636	1.50	654	1.58	674	1.67	694	1.75	715	2.33	733	2.42	750	2.62	785	2.85	814	3.04	848	3.26	913	3.68						
5,804	3000	568	159	636	1.59	660	1.68	681	1.75	701	1.83	720	1.91	745	2.85	780	3.10	810	3.29	839	3.49	868	3.78	913	4.17	951	4.69						
6,191	3200	586	178	660	1.78	684	1.87	704	1.96	724	2.05	744	2.14	769	3.20	805	3.87	850	4.18	876	4.42	902	4.59	932	4.84	980	5.23						
6,578	3400	604	196	684	1.96	708	2.05	732	2.14	752	2.23	772	2.32	797	3.20	820	3.87	865	4.18	886	4.42	912	4.59	938	4.84	988	5.23						

No. 1½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1½" S. P.			3½" S. P.			5½" S. P.			7½" S. P.			F' S. P.			1¾" S. P.			1½" S. P.			2" S. P.			2½" S. P.			3" S. P.				
		R. P. M.	B. P. M.	R. B.	R. P. M.																												
1,935	1000	282	14	330	18	372	23	422	24	461	33	504	37	538	47	538	51	603	62	603	62	603	62	603	62	603	62	603	62	603	62	603	62
2,129	1100	292	16	335	22	377	27	422	30	461	36	500	45	533	51	603	62	603	62	603													

(CLARAGE)

No. 1 $\frac{3}{4}$ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{1}{2}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$\frac{7}{8}''$ S. P.		1'' S. P.		1 $\frac{1}{4}''$ S. P.		1 $\frac{1}{2}''$ S. P.		1 $\frac{3}{4}''$ S. P.		2'' S. P.		2 $\frac{1}{2}''$ S. P.		3'' S. P.							
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.																
2,630	1000	259	.20	296	.25	320	.32	336	.39	372	.45	408	.52	437	.64	471	.74	500	.79	527	1.00	550	1.27	580	1.37	627	1.63	668	1.98	668	2.29	668	2.58
2,893	1100	269	.26	304	.37	317	.43	345	.43	378	.50	410	.58	437	.64	471	.74	500	.79	527	1.00	550	1.27	580	1.37	627	1.63	668	1.98	668	2.29	668	2.58
3,156	1200	281	.29	317	.37	345	.43	353	.49	382	.56	415	.65	442	.72	471	.79	500	.79	527	1.00	550	1.27	580	1.37	627	1.63	668	1.98	668	2.29	668	2.58
3,419	1300	293	.36	324	.43	353	.49	382	.54	387	.62	420	.73	446	.79	471	.98	500	.98	527	1.16	550	1.37	580	1.37	627	1.63	668	1.98	668	2.29	668	2.58
3,682	1400	307	.43	336	.48	365	.54	387	.64	400	.71	428	.79	451	.87	478	.98	500	.98	527	1.16	550	1.37	580	1.37	627	1.63	668	1.98	668	2.29	668	2.58
3,945	1500	319	.49	349	.56	375	.64	400	.71	428	.79	451	.87	478	.98	500	.98	527	1.16	550	1.37	580	1.37	627	1.63	668	1.98	668	2.29	668	2.58		
4,208	1600	333	.56	362	.66	387	.73	412	.79	437	.90	459	.98	480	1.06	500	1.06	530	1.26	550	1.55	580	1.74	600	1.98	622	2.24	647	2.77				
4,471	1700	349	.68	377	.74	398	.82	420	.90	446	1.00	466	1.08	487	1.19	500	1.08	530	1.37	550	1.66	580	1.84	600	2.08	647	2.44	665	2.77				
4,734	1800	365	.77	391	.86	412	.93	432	1.02	454	1.12	476	1.24	497	1.32	500	1.12	530	1.53	550	1.77	580	1.98	622	2.24	647	2.77	677	3.37				
4,997	1900	382	.86	403	1.06	424	1.15	444	1.25	467	1.34	487	1.43	508	1.48	520	1.57	543	1.66	562	1.92	580	2.11	600	2.29	622	2.58	668	2.91				
5,260	2000	416	1.10	437	1.19	457	1.29	479	1.38	500	1.50	517	1.61	534	1.71	554	1.79	571	2.11	591	2.37	614	2.42	647	2.69	677	3.08	695	3.37				
5,786	2200	467	1.51	483	1.58	504	1.71	521	1.79	538	1.92	557	2.11	577	2.32	596	2.51	614	2.42	647	2.42	647	2.69	677	3.08	695	3.37	695	3.37	695	3.37		
6,312	2400	496	1.84	513	1.95	534	2.08	554	2.17	574	2.32	594	2.55	613	2.65	631	2.85	650	3.03	651	3.35	677	3.55	690	3.75	717	3.95	737	4.15	757	4.35		
6,838	2600	538	2.37	560	2.55	580	2.74	600	2.91	620	3.16	641	3.29	664	3.44	684	3.56	702	3.72	727	4.13	747	4.43	762	4.67	782	5.08	807	5.33				
7,364	2800	584	3.08	604	3.27	624	3.46	644	3.65	664	3.84	684	4.03	704	4.22	724	4.42	744	4.62	764	4.82	784	5.08	807	5.33	827	5.67	847	5.91				
7,890	3000	631	4.35	672	4.62	692	4.91	712	5.27	732	5.68	750	6.00	773	6.25	793	6.58	814	6.78	834	7.20	854	7.44	874	7.67	894	7.91	914	8.15				
8,416	3200	651	4.35	672	4.62	692	4.91	712	5.27	732	5.68	750	6.00	773	6.25	793	6.58	814	6.78	834	7.20	854	7.44	874	7.67	894	7.91	914	8.15				
8,932	3400	651	4.35	672	4.62	692	4.91	712	5.27	732	5.68	750	6.00	773	6.25	793	6.58	814	6.78	834	7.20	854	7.44	874	7.67	894	7.91	914	8.15				

No. 1 $\frac{3}{4}$ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{1}{2}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$\frac{7}{8}''$ S. P.		1'' S. P.		1 $\frac{1}{4}''$ S. P.	
--------------------	--	-----------------------	--	-----------------------	--	-----------------------	--	-----------------------	--	-----------------------	--	-----------------------	--	-----------	--	-------------------------	--

(CLARAGE)

No. 2 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.			$\frac{3}{8}''$ S. P.			$\frac{5}{8}''$ S. P.			$\frac{3}{4}''$ S. P.			$\frac{7}{8}''$ S. P.			$1\frac{1}{4}''$ S. P.			$1\frac{1}{2}''$ S. P.			$2''$ S. P.			$2\frac{1}{2}''$ S. P.			$3''$ S. P.					
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.					
3,440	1000	226	26	258	33	324	50	324	56	356	68	382	83	411	97	382	111	411	104	460	131	166	507	180	547	214	584	259	584	273	650	338	650	338
3,784	1100	235	32	266	42	294	56	330	66	358	76	382	83	411	97	382	111	411	104	460	142	142	507	180	547	214	584	259	584	273	650	338	650	338
4,128	1200	245	38	275	49	301	56	330	66	358	76	382	83	411	97	382	111	411	104	460	142	142	507	180	547	214	584	259	584	273	650	338	650	338
4,472	1300	255	47	283	56	308	64	334	73	363	85	386	94	411	104	411	111	411	104	460	142	142	507	180	547	214	584	259	584	273	650	338	650	338
4,816	1400	268	56	294	63	319	71	338	82	367	95	390	104	411	111	411	111	411	111	460	142	142	507	180	547	214	584	259	584	273	650	338	650	338
5,160	1500	279	64	305	73	325	83	350	94	374	104	393	111	411	111	411	111	411	111	460	142	142	507	180	547	214	584	259	584	273	650	338	650	338
5,504	1600	291	73	316	87	338	95	360	104	382	118	400	128	418	138	463	166	444	200	544	228	228	584	214	584	259	584	273	650	338	650	338		
5,848	1700	304	88	329	97	348	107	367	118	389	131	407	142	426	156	463	180	507	218	544	242	242	580	214	584	259	584	273	650	338	650	338		
6,192	1800	318	100	341	112	360	121	378	133	397	147	414	162	433	173	470	200	512	231	544	259	259	580	214	584	259	584	273	650	338	650	338		
6,536	1900	332	115	363	144	382	155	398	169	419	181	437	197	452	210	485	235	470	252	499	276	536	318	565	352	591	387	650	459	711	535			
6,880	2000	346	130	382	199	423	207	441	224	455	235	470	252	499	276	536	318	565	352	591	387	650	459	711	535	591	387	650	459	711	535			
7,568	2200	360	144	408	199	423	207	441	224	455	235	470	252	499	276	536	318	565	352	591	387	650	459	711	535	591	387	650	459	711	535			
8,256	2400	374	160	433	242	448	255	467	273	477	285	492	304	518	325	539	347	551	373	578	408	603	422	661	518	715	601	715	601	715	601			
8,944	2600	388	175	458	274	484	285	503	301	511	311	521	336	541	356	562	376	588	408	610	422	635	518	683	581	724	666	724	666	724	666			
9,632	2800	402	190	482	298	512	311	527	328	536	345	545	364	563	383	588	408	610	422	635	518	683	581	724	666	724	666	724	666					
10,320	3000	416	205	506	311	531	326	546	341	556	361	571	381	591	401	611	421	636	518	656	536	698	518	735	636	775	606	775	606					
11,008	3200	430	220	520	311	531	326	546	341	556	361	571	381	591	401	611	421	636	518	656	536	698	518	735	636	775	606	775	606					
11,696	3400	444	235	534	311	531	326	546	341	556	361	571	381	591	401	611	421	636	518	656	536	698	518	735	636	775	606	775	606					

No. 2 Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.			$\frac{3}{8}''$ S. P.			$\frac{5}{8}''$ S. P.			$\frac{3}{4}''$ S. P.			$\frac{7}{8}''$ S. P.			$1\frac{1}{4}''$ S. P.			$1\frac{1}{2}''$ S. P.			$2''$ S. P.
--------------------	--	-----------------------	--	--	-----------------------	--	--	-----------------------	--	--	-----------------------	--	--	-----------------------	--	--	------------------------	--	--	------------------------	--	--	-------------

(CLARAGE)

No. 21½ Type HV Fan, Single Width, Single Inlet

Outlet Velocity Feet per Min.	Volume C. F. M.	$\frac{1}{4}$ " S. P.			$\frac{3}{8}$ " S. P.			$\frac{5}{8}$ " S. P.			$\frac{3}{4}$ " S. P.			$\frac{7}{8}$ " S. P.			$1\frac{1}{2}$ " S. P.			$1\frac{1}{4}$ " S. P.			$1\frac{1}{2}$ " S. P.			$1\frac{3}{4}$ " S. P.			$2''$ S. P.			$2\frac{1}{2}''$ S. P.			$3''$ S. P.		
		R. P. M.	B. H. P.	R. P. M.	R. B.	R. H. P.	R. P. M.	R. B.	R. H. P.	R. P. M.	R. B.	R. H. P.	R. P. M.	R. B.	R. H. P.	R. P. M.	R. B.	R. H. P.	R. P. M.	R. B.	R. H. P.	R. P. M.	R. B.	R. H. P.													
4,350	1000	200	.33	229	.42	287	.74	315	.85	338	1.05	364	.96	317	.83	293	.70	267	.53	260	.64	287	.70	293	.70	267	.61	244	.48	208	.40	200	.33				
4,785	1100	208	.40	236	.53	293	.83	338	1.05	364	1.22	364	1.05	338	1.05	364	1.22	364	1.05	338	1.05	364	1.22	364	1.05	338	1.05	364	1.22	364	1.05	338	1.05	364	1.22	364	1.05
5,220	1200	217	.48	244	.61	300	.83	341	1.31	364	1.48	364	1.31	341	1.31	364	1.48	364	1.31	341	1.31	364	1.48	364	1.31	341	1.31	364	1.48	364	1.31	341	1.31	364	1.48	364	1.31
5,655	1300	226	.59	250	.70	273	.81	296	1.07	341	1.18	364	1.18	341	1.18	364	1.18	364	1.18	341	1.18	364	1.18	364	1.18	341	1.18	364	1.18	364	1.18	341	1.18	364	1.18	364	1.18
6,090	1400	237	.70	260	.79	282	.90	299	1.03	325	1.20	345	1.20	325	1.20	345	1.20	345	1.20	325	1.20	345	1.20	345	1.20	325	1.20	345	1.20	345	1.20	325	1.20	345	1.20	345	1.20
6,525	1500	247	.81	270	.81	289	1.05	310	1.05	332	1.31	349	1.44	369	1.61	407	1.92	448	2.09	485	2.27	485	2.27	485	2.27	485	2.27	485	2.27	485	2.27	485	2.27	485	2.27	485	2.27
6,960	1600	258	.92	280	1.09	299	1.20	319	1.31	338	1.48	354	1.61	371	1.74	410	1.96	448	2.26	481	2.74	481	2.74	481	2.74	481	2.74	481	2.74	481	2.74	481	2.74	481	2.74	481	2.74
7,395	1700	270	1.11	292	1.22	308	1.32	325	1.48	345	1.66	360	1.79	378	1.96	410	2.18	453	2.53	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92
7,830	1800	283	1.26	302	1.42	319	1.53	334	1.68	351	1.85	368	2.05	384	2.18	417	2.53	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92	481	2.92		
8,265	1900	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
8,700	2000	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
9,570	2200	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
10,440	2400	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
11,310	2600	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
12,180	2800	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
13,050	3000	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
13,920	3200	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00
14,790	3400	300	1.41	312	1.61	328	1.74	344	1.90	361	2.22	394	2.44	420	2.74	458	3.18	488	3.48	514	3.88	573	4.27	605	4.58	634	4.97	660	5.37	687	5.79	718	6.19	757	6.58	797	7.00

No. 2^{1/4} Type HV Fan, Single Width, Double Inlet

NOTE—The black faced tame indicates the most efficient point of operation for each pressure.

Values Guaranteed for Standard Air: Temperature, 68°F . Pressure, 29.92 inches. Weight, 0.07488 lbs. per cubic foot.

(TYPE HV FANS) 77% EFFICIENT

(CLARAGE)

No. 2½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	¼" S. P.		⅜" S. P.		½" S. P.		⅝" S. P.		¾" S. P.		⅞" S. P.		1" S. P.		1½" S. P.		1¾" S. P.		2" S. P.		2½" S. P.		3" S. P.			
		R. P. M.	B. P. M.	R. B. H. P.	P. M.																						
5,370	1000	181	.41	207	.51	236	.78	260	.92	286	1.05	306	1.29	330	1.51	354	1.72	378	1.90	402	2.08	427	2.24	452	2.40		
5,907	1100	188	.50	213	.65	242	.86	265	1.03	287	1.19	306	1.39	330	1.51	354	1.72	378	1.90	402	2.08	427	2.24	452	2.40		
6,444	1200	197	.59	221	.76	247	1.03	271	1.27	294	1.48	312	1.62	330	1.83	356	2.05	368	2.21	407	2.37	437	2.58	468	2.75		
6,981	1300	205	.72	227	.86	247	1.00	268	1.13	291	1.32	309	1.45	330	1.62	356	1.83	368	2.21	407	2.37	437	2.58	468	2.82		
7,518	1400	215	.86	236	.97	256	1.10	271	1.27	294	1.48	312	1.62	330	1.99	356	2.35	368	2.21	407	2.37	437	2.58	468	2.82		
8,055	1500	224	1.00	245	1.13	262	1.29	280	1.45	300	1.62	316	1.78	335	1.99	369	2.37	377	2.58	407	2.80	437	3.34	468	4.03		
8,592	1600	233	1.13	254	1.35	271	1.48	289	1.62	306	1.83	321	1.99	336	2.15	371	2.58	407	3.12	436	3.55	468	4.25	521	5.28		
9,129	1700	245	1.37	264	1.51	279	1.67	295	1.83	312	2.05	326	2.23	342	2.42	371	2.80	407	3.39	436	3.77	468	4.58	518	5.65		
9,666	1800	256	1.56	274	1.75	289	1.88	303	2.07	318	2.29	333	2.53	348	2.69	377	3.12	410	3.61	436	4.04	465	4.58	518	5.65		
10,203	1900	283	1.99	297	2.15	311	2.34	327	2.56	340	2.75	356	3.01	380	3.39	415	3.93	436	4.31	465	4.79	518	5.98	571	7.21		
10,740	2000	292	2.24	306	2.42	319	2.64	336	2.83	351	3.07	362	3.28	389	3.66	421	4.20	443	4.68	498	5.17	518	6.35	571	7.53		
11,814	2200	327	3.10	339	3.23	354	3.50	365	3.66	377	3.93	400	4.81	430	4.95	454	5.50	475	6.02	518	7.15	570	8.35
12,888	2400	348	3.77	359	3.98	374	4.25	383	4.45	395	4.73	415	5.22	442	5.82	463	6.35	483	6.90	530	8.05	573	9.36
13,962	2600	377	4.85	395	4.85	392	5.23	400	5.37	410	5.65	432	6.18	456	6.85	474	7.27	495	7.85	537	9.15	580	10.4
15,036	2800	409	6.30	419	6.30	409	6.30	419	6.45	430	6.73	450	7.27	472	7.90	489	8.45	510	9.05	548	10.2	586	11.6
16,110	3000	436	7.55	447	7.90	460	8.61	487	9.15	504	9.69	525	10.4	560	11.6	598	13.0
17,184	3200	457	8.88	471	9.42	489	10.0	510	11.6	527	12.3	541	12.8	589	13.5	621	16.4
18,258	3400	

No. 2½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	¼" S. P.		⅜" S. P.		½" S. P.		⅝" S. P.		¾" S. P.		⅞" S. P.		1" S. P.		1½" S. P.		1¾" S. P.		2" S. P.		2½" S. P.		3" S. P.			
		R. P. M.	B. P. M.	R. B. H. P.	P. M.																						
5,370	1000	169	.40	198	.49	224	.60	226	.68	229	.73	253	.84	253	.76	276	.92	302	1.02	322	1.29	362	1.72	407	2.17	442	2.61
5,907	1100	175	.43	201	.54	206	.54	206	.68	229	.84	253	.97	276	1.08	300	1.24	320	1.40	362	1.72	407	2.17	442	2.61	475	3.08
6,444	1200	182	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6,981	1300	191	.68	212	.81	233	.96	255	1.08	276	1.21	300	1.37	320	1.53	359	1.86	392	2.02	392	2.39	391	2.55	424	2.98</		

CLARAGE

No. 3 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{1}{2}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$\frac{7}{8}''$ S. P.		1'' S. P.		1 $\frac{1}{4}''$ S. P.		1 $\frac{1}{2}''$ S. P.		1 $\frac{3}{4}''$ S. P.		2'' S. P.		2 $\frac{1}{2}''$ S. P.		3'' S. P.			
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.												
7,740	1000	151	.58	173	.74	1.32	238	1.51	275	2.17	2.33	306	2.95	338	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72
8,514	1100	157	.72	178	.93	1.13	217	1.48	239	1.71	255	1.86	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275
9,288	1200	164	.85	184	1.09	201	1.24	221	1.48	239	1.71	255	1.86	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275	2.17	275	
10,062	1300	171	1.05	189	1.24	206	1.44	223	1.63	242	1.90	257	2.10	275	2.33	260	2.33	275	2.64	306	3.14	338	3.72	3.72	3.72	3.72	3.72	3.72	3.72
10,836	1400	179	1.24	196	1.40	213	1.59	226	1.82	245	2.13	260	2.33	263	2.56	279	2.87	307	3.41	338	4.03	365	4.81	5.11	5.11	5.11	5.11	5.11	5.11
11,610	1500	187	1.43	204	1.63	218	1.86	234	2.10	250	2.33	263	2.56	279	2.87	307	3.41	338	4.03	365	4.81	5.11	5.11	5.11	5.11	5.11	5.11	5.11	
12,384	1600	195	1.63	211	1.94	226	2.14	240	2.33	255	2.64	267	2.87	280	3.10	309	3.72	338	4.46	365	5.11	388	5.81	6.12	6.12	6.12	6.12	6.12	
13,158	1700	204	1.98	220	2.17	233	2.40	245	2.64	260	2.95	272	3.18	285	3.48	309	4.03	338	4.85	365	5.43	388	5.81	6.12	6.12	6.12	6.12	6.12	
13,932	1800	213	2.25	228	2.52	241	2.71	252	2.98	265	3.29	277	3.64	290	3.88	314	4.46	341	5.20	365	5.81	388	5.81	6.12	6.12	6.12	6.12	6.12	
14,706	1900	222	2.22	235	2.87	248	3.10	259	3.37	272	3.68	283	3.95	297	4.34	317	4.85	345	5.63	368	6.20	388	6.90	7.45	7.45	7.45	7.45	7.45	
15,480	2000	231	2.22	243	3.22	255	3.49	266	3.80	280	4.08	292	4.42	302	4.73	324	5.27	350	6.00	370	6.75	390	7.45	8.16	8.16	8.16	8.16	8.16	
17,028	2200	240	2.25	253	3.22	273	4.45	282	4.65	294	5.05	304	5.27	314	5.65	334	6.20	358	7.13	377	7.90	395	8.70	9.35	9.35	9.35	9.35	9.35	
18,576	2400	259	2.22	270	3.22	288	4.45	299	5.74	312	6.13	319	6.40	328	6.78	346	7.52	368	8.37	385	9.13	403	9.95	11.7	11.7	11.7	11.7	11.7	
20,124	2600	278	2.22	289	3.22	307	4.45	318	6.98	326	7.50	334	7.74	342	8.13	360	8.90	380	9.83	395	10.5	408	12.2	14.7	14.7	14.7	14.7	14.7	
21,672	2800	297	2.22	308	3.22	327	4.45	339	9.06	348	9.29	358	9.68	375	10.5	392	11.4	407	12.2	424	13.1	437	15.0	17.1	17.1	17.1	17.1	17.1	
23,220	3000	316	2.22	327	3.22	346	4.45	359	10.9	372	11.4	390	12.4	405	13.2	420	14.4	434	15.9	451	17.1	466	18.8	20.9	20.9	20.9	20.9	20.9	
24,768	3200	335	2.22	345	3.22	365	4.45	378	12.8	392	13.6	407	14.4	425	15.5	438	16.7	451	17.7	466	18.4	481	21.2	23.6	23.6	23.6	23.6	23.6	
26,316	3400	354	2.22	364	3.22	384	4.45	397	14.7	414	15.5	429	16.7	442	17.7	451	18.4	466	19.4	481	21.2	23.6	23.6	23.6	23.6	23.6	23.6		

No. 3 Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{1}{2}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$\frac{7}{8}''$ S. P.		1'' S. P.		1 $\frac{1}{4}''$ S. P.		1 $\frac{1}{2}''$ S. P.		1 $\frac{3}{4}''$ S. P.		2'' S. P.		2 $\frac{1}{2}''$ S. P.		3'' S. P.	

(CLARAGE)

No. 3½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	¾" S. P.		½" S. P.		⅓" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.	
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.
10,550	1000	126	.80	147	1.00	166	1.32	185	1.59	204	2.01	236	2.90	265	3.17	292	3.43	323	3.96
11,605	1100	132	.95	149	1.27	168	1.53	185	1.85	204	2.32	219	2.54	263	4.23	289	5.02	313	6.35
12,660	1200	136	1.22	153	1.53	170	1.80	187	2.04	206	2.85	219	3.17	233	3.49	261	4.55	288	5.29
13,715	1300	143	1.43	160	1.69	174	1.90	189	2.16	204	2.48	219	2.85	233	3.17	265	4.23	289	5.02
14,770	1400	149	1.69	164	1.96	178	2.16	192	2.54	206	2.85	219	3.17	233	3.49	261	4.55	288	5.29
15,825	1500	156	1.95	170	2.22	183	2.48	195	2.90	210	3.17	223	3.49	233	3.80	261	4.55	288	5.29
16,880	1600	161	2.17	177	2.59	189	2.90	202	3.17	215	3.59	225	3.96	235	4.23	261	5.02	286	5.70
17,935	1700	168	2.54	183	2.90	194	3.17	206	3.70	219	4.01	227	4.28	240	4.65	263	5.39	286	6.23
18,990	1800	174	2.90	189	3.33	199	3.70	210	4.01	223	4.44	233	4.75	244	5.07	265	6.01	286	6.77
20,045	1900	195	3.70	206	4.12	216	4.49	227	4.96	238	5.28	248	5.65	269	6.55	288	7.30	309	8.15
21,100	2000	201	4.17	212	4.60	223	5.06	233	5.50	244	6.02	253	6.35	271	7.13	290	8.15	309	9.15
23,210	2200	227	5.80	235	6.23	244	6.75	254	7.18	263	7.71	282	8.70	298	9.50	315	10.4	334	11.5
25,320	2400	240	7.13	248	7.70	256	8.25	267	8.75	275	9.25	292	10.3	307	10.9	323	12.2	338	13.1
27,430	2600	261	9.30	271	9.90	280	10.5	286	11.0	303	12.2	317	12.9	332	14.1	346	15.1	375	17.3
29,540	2800	284	11.7	292	12.5	300	12.8	315	14.2	328	15.0	342	16.4	357	17.5	382	19.9	410	22.2
31,650	3000	318	16.9	325	17.5	330	14.5	311	15.0	328	16.6	338	17.6	353	19.0	366	20.1	391	22.4
33,760	3200	320	17.5	325	18.0	330	14.5	311	15.0	328	16.6	338	17.6	353	19.0	366	20.3	391	22.4
35,870	3400	340	18.0	345	18.5	350	14.5	318	16.9	330	17.5	342	18.0	364	20.4	353	21.8	388	24.6

No. 3½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	¾" S. P.		½" S. P.		⅓" S. P.		⅛" S. P.												
		R. P. M.	B. H. P.																	
10,550	1000	121	.77	141	.95	160	1.22	181	1.48	197	1.79	216	2.01	230	2.56	258	3.38	303	5.87	361
11,605	1100	125	.85	144	1.16	162	1.32	184	1.64	181	1.90	197	2.11	214	2.43	229	2.75	303	5.87	361
12,660	1200	130	1.06	147	1.44	173	1.64	198	2.01	198	2.38	214	2.70	229	3.01	256	3.64	323	7.13	323
13,715	1300	136	1.32	151	1.59	166	1.88	182	2.11	197	2.38	214	2.70	229	3.01	256	3.96	280	4.70	303
14,770	1400	141	1.59	156	1.85	170	2.09	185	2.38	199	2.64	214	2.96	229	3.28	254	3.96	280	4.70	303
15,825	1500	147	1.85	162	2.11	175	2.32	189	2.64	202	2.91	216	3.28	229	3.59	254	4.28	279	5.03	303
16,880	1600	151	2.11	167	2.38	181	2.64	193	2.96	206	3.28	218	3.65	231	3.96	254	4.65	278	5.40	300
17,935	1700	160	2.38	173	2.69	185	3.01	198	3.33	208	3.70	221	4.02	231	4.38	254	5.07	278	5.87	300
18,990	1800	166	2.64	178	3.01	191	3.43	202	3.70	212	4.07	225	4.50	235	4.86	256	5.55	278	6.34	300
20,045	1900	173	3.01	183	3.48	196	3.91	207	4.17	216	4.54	228	4.97	240	5.40	258	6.07	279	6.87	300
21,100	2000	189	3.80	202	4.28	210	4.65	221	5.02	233	5.40	242	5.91	261	6.50	281	7.40	300	8.24	323
23,210	2200	204	4.96	214	5.28	221	5.70	233	6.19	241	6.60	250	7.08	267	7.87	286	8.77	305		

(CLARAGE)

No. 4 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{1}{2}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$\frac{7}{8}''$ S. P.		1'' S. P.		1 $\frac{1}{4}''$ S. P.		1 $\frac{1}{2}''$ S. P.		1 $\frac{3}{4}''$ S. P.		2'' S. P.		2 $\frac{1}{2}''$ S. P.		3'' S. P.		
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.											
13,770	1000	111	1.05	129	1.31	146	1.72	162	2.07	179	2.62	191	3.31	206	3.79
15,147	1100	116	1.25	131	1.66	147	2.00	149	2.35	164	2.55	179	3.03	191	3.31	206	3.79
16,524	1200	120	1.59	134	2.00	149	2.35	164	2.55	179	3.03	191	3.31	206	3.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17,901	1300	125	1.86	140	2.21	152	2.48	166	2.83	179	3.24	191	3.72	204	4.14	232	5.17	253	6.55
19,278	1400	131	2.21	143	2.55	156	2.83	168	3.31	180	3.72	192	4.13	204	4.49	230	5.52	253	6.90	274	8.28	.....	.....	.....	.....	.....	.....
20,655	1500	136	2.55	149	2.90	160	3.24	171	3.80	184	4.14	195	4.55	204	4.97	228	5.93	252	6.90	274	8.28	.....	.....	.....	.....	.....	.....
22,032	1600	141	2.82	155	3.35	165	3.79	177	4.13	188	4.69	197	5.17	206	5.52	228	6.55	250	7.45	272	8.70	294	10.1	331	13.5	364	17.3	
23,409	1700	147	3.31	160	3.80	169	4.13	180	4.83	191	5.24	199	5.60	210	6.07	230	7.03	250	8.13	270	9.30	292	10.7	331	13.5	364	17.3	
24,786	1800	153	3.80	166	4.34	175	4.83	184	5.25	195	5.80	204	6.20	214	6.62	232	7.86	250	8.82	270	10.0	290	11.4	328	14.2	364	17.3	
26,163	1900	171	4.83	180	5.38	189	5.87	199	6.50	208	6.90	217	7.40	236	8.55	252	9.24	270	10.8	239	12.1	327	15.0	362	17.9	359	18.6	
27,540	2000	176	4.75	185	6.00	195	6.62	204	7.18	213	7.87	221	8.28	238	9.30	254	10.6	270	11.7	290	13.1	324	15.9	359	18.6	355	20.7	
30,294	2200	197	7.60	206	7.45	213	8.45	223	9.40	230	10.1	246	11.4	261	12.4	276	13.5	292	15.0	324	17.7	355	20.7	359	25.6	359	29.0	
33,048	2400	210	9.30	217	10.1	224	10.8	233	11.5	240	12.1	255	13.4	268	14.2	282	15.9	296	17.1	324	19.9	353	23.0	355	25.6	359	29.0	
35,802	2600	228	12.2	238	13.0	245	13.7	255	14.5	255	16.3	262	16.7	276	18.5	287	19.6	299	21.4	312	22.9	334	25.9	359	29.0	359	29.0	
38,556	2800	248	15.5	248	15.5	255	16.3	255	16.3	255	16.3	262	16.7	276	18.5	287	19.6	298	21.7	309	24.8	320	26.2	342	29.2	364	32.5	
41,310	3000	278	22.1	278	22.1	284	22.9	298	24.8	298	24.8	307	26.5	318	30.6	329	32.1	340	34.0	360	34.0	360	37.9	379	41.4	379	41.4	
44,664	3200	298	27.5	298	27.5	305	27.5	315	29.5	315	29.5	325	27.5	335	31.1	345	33.1	351	31.1	360	34.0	360	37.9	379	41.4	379	41.4	
46,818	3400	320	32.5	320	32.5	330	32.5	340	34.5	340	34.5	350	34.5	360	36.5	370	36.5	380	36.5	390	36.5	390	37.9	379	41.4	379	41.4	

No. 4 Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{1}{2}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$\frac{7}{8}''$ S. P.		1'' S. P.		1 $\frac{1}{4}''$ S. P.		1 $\frac{1}{2}''$ S. P.		1 $\frac{3}{4}''$ S. P.		2'' S. P.		2 $\frac{1}{2}''$ S. P.		3'' S. P.	
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.										
13,770	1000	106	1.01	123</																							

[CLARAGE]

No. 4½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1½" S. P.		3/8" S. P.		1/2" S. P.		5/8" S. P.		3/4" S. P.		7/8" S. P.		1" S. P.		1½" S. P.		1¾" S. P.		2" S. P.		2½" S. P.		3" S. P.	
		R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.
17,400	1000	98	1.31	114	1.65	129	2.17	144	2.61	158	3.30	170	4.18	183	4.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19,140	1100	103	1.57	116	2.09	131	2.52	144	3.05	158	3.83	170	4.18	183	4.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20,880	1200	106	2.00	119	2.52	132	2.96	145	3.22	158	3.83	170	4.18	183	4.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22,620	1300	111	2.35	124	2.79	135	3.13	147	3.57	158	4.09	170	4.70	181	5.23	206	6.52	225	8.27	.....	.....	.....	.....	.....	.....
24,360	1400	116	2.80	127	3.22	139	3.57	149	4.18	160	4.70	171	5.22	181	5.65	204	6.96	223	8.70	244	10.4	.....	.....	.....	.....
26,100	1500	121	3.22	132	3.65	142	4.05	152	4.78	163	5.22	173	5.74	181	6.26	203	7.48	223	8.70	244	10.4	.....	.....	.....	.....
27,840	1600	126	3.57	137	4.27	147	4.79	157	5.22	167	5.92	175	6.52	183	6.96	203	8.27	222	9.40	242	11.1	261	12.7	.....	.....
29,580	1700	130	4.18	142	4.79	150	5.22	160	6.10	170	6.61	177	7.04	186	7.66	204	8.88	222	10.3	240	11.8	260	13.5	294	17.0
31,320	1800	136	4.78	147	5.48	155	6.09	163	6.62	173	7.30	181	7.83	189	8.35	206	9.92	222	11.1	240	12.5	258	14.4	292	17.9
33,060	1900	140	5.44	152	6.09	160	6.78	168	7.40	176	8.17	184	8.70	193	9.32	209	10.8	223	12.0	240	13.6	256	15.2	290	19.0
34,800	2000	156	6.87	165	7.58	173	8.35	181	9.05	189	9.92	196	10.4	211	11.7	225	13.4	240	14.8	258	16.5	287	20.0	318	23.5
38,280	2200	175	9.58	183	10.3	189	11.1	198	11.8	204	12.5	219	14.4	232	15.7	245	17.0	259	19.0	287	22.3	315	26.1	.....	.....
41,760	2400	186	11.7	193	12.7	199	13.6	207	14.5	214	15.2	227	16.9	238	17.9	251	20.0	262	21.6	287	25.1	313	29.0	321	22.7
45,240	2600	205	15.3	210	16.4	218	17.2	222	18.0	235	20.0	247	21.2	258	23.2	269	24.9	292	28.5	315	32.5	321	36.5	319	36.5
48,720	2800	220	19.5	220	20.5	227	20.5	233	21.1	245	23.3	255	24.7	266	27.0	277	28.9	297	28.9	297	28.9	319	32.7	319	36.5
52,200	3000	247	27.9	253	28.9	264	33.4	272	31.3	284	35.7	294	37.9	304	36.9	310	41.7	330	47.9	320	43.0	320	47.9	336	52.2
55,680	3200	247	27.9	253	28.9	264	33.4	272	31.3	284	35.7	294	37.9	304	36.9	310	41.7	330	47.9	320	43.0	320	47.9	336	52.2
59,160	3400	247	27.9	253	28.9	264	33.4	272	31.3	284	35.7	294	37.9	304	36.9	310	41.7	330	47.9	320	43.0	320	47.9	336	52.2

No. 4½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1½" S. P.		3/8" S. P.		1/2" S. P.		5/8" S. P.		3/4" S. P.		7/8" S. P.		1" S. P.		1½" S. P.		1¾" S. P.		2" S. P.		2½" S. P.		3" S. P.	
		R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.	R.	B.
17,400	1000	94	1.27	110	1.57	125	2.00	141	2.44	154	2.96	168	3.31	179	4.18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19,140	1100	98	1.40	112	1.92	126	2.35	141	2.79	154	3.57	167	4.00	178	4.53	201	5.57	.....	.....	.....	.....	.....	.....	.....	.....
20,880	1200	102	1.74	115	2.18	128	2.70	141	3.14	154	3.48	167	4.00	178	4.53	201	5.57	.....	.....	.....	.....	.....	.....	.....	.....
22,620	1300	106	2.18	118	2.61	130	3.10	142	3.48	154	3.92	167	4.44	178	4.97	200	6.00	223	7.75	235	9.65	253	11.8	280	17.4
24,360	1400	110	2.61	122	3.05	132	3.45	144	3.93	155	4.35	167	4.88	178	5.40	198	6.53	218	7.75	235	9.65	253	11.8	280	17.4
26,100	1500	115	3.05	126	3.48	136	3.83	147	4.35	157	4.78	168	5.40	178	5.93	198	7.05	217	8.28	235	9.65	253	11.8	280	17.4
27,840	1600	118	3.48	130	3.92	141	4.35	151	4.88	160	5.40	170	6.00	180	6.53	198	7.6								

(CLARAGE)

No. 5 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1/4" S. P.				1/2" S. P.				3/4" S. P.				5/8" S. P.				7/8" S. P.				1 1/2" S. P.				2" S. P.			
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.																				
21,500	88	1.61	103	2.04	116	2.69	129	3.23	143	4.09	4.74	5.16	5.92	5.16	5.92	5.16	5.92	5.16	5.92	5.16	5.92	5.16	5.92	5.16	5.92	5.16	5.92	5.16	5.92
23,650	93	1.93	105	2.58	118	3.12	129	3.77	143	4.74	5.74	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53
25,800	96	2.47	107	3.12	119	3.65	131	3.98	143	4.74	5.74	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53	6.16	6.53
27,950	100	2.90	112	3.45	122	3.87	132	4.41	143	5.05	5.80	6.45	7.00	6.45	7.00	6.45	7.00	6.45	7.00	6.45	7.00	6.45	7.00	6.45	7.00	6.45	7.00	6.45	7.00
30,100	104	3.44	115	3.96	125	4.41	134	5.16	144	5.80	6.54	7.00	7.50	7.00	7.50	7.00	7.50	7.00	7.50	7.00	7.50	7.00	7.50	7.00	7.50	7.00	7.50	7.00	7.50
32,250	109	3.96	119	4.52	128	5.07	137	5.91	147	6.46	7.10	7.63	8.10	7.63	8.10	7.63	8.10	7.63	8.10	7.63	8.10	7.63	8.10	7.63	8.10	7.63	8.10	7.63	8.10
34,400	113	4.41	124	5.27	132	5.92	140	6.45	150	7.32	8.07	8.60	9.13	8.60	9.13	8.60	9.13	8.60	9.13	8.60	9.13	8.60	9.13	8.60	9.13	8.60	9.13	8.60	9.13
36,550	118	5.16	128	5.92	135	6.45	144	7.54	153	8.18	8.71	9.46	10.00	9.46	10.00	9.46	10.00	9.46	10.00	9.46	10.00	9.46	10.00	9.46	10.00	9.46	10.00	9.46	10.00
38,700	122	5.92	132	6.78	139	7.54	147	8.17	156	8.71	9.35	10.00	10.63	9.67	10.30	10.63	9.67	10.30	10.63	9.67	10.30	10.63	9.67	10.30	10.63	9.67	10.30	10.63	9.67
40,850	1900	137	7.53	144	8.40	152	9.15	159	10.1	166	10.8	174	11.5	188	12.3	201	14.8	216	16.8	230	18.8	262	23.5	290	28.0	287	29.0	284	32.3
43,000	2000	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	190	14.5	203	16.6	216	18.3	232	20.4	259	24.7	284	27.5	284	27.5	284	32.3
47,300	2200	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3
51,600	2400	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3
55,900	2600	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3
60,200	2800	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3
64,500	3000	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3
68,800	3200	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3
73,100	3400	141	8.50	149	9.35	156	10.3	163	11.2	171	12.3	177	13.0	197	15.5	209	17.7	220	21.1	233	23.5	259	27.5	284	27.5	284	32.3	284	32.3

No. 5 Type HV Fan, Single Width, Double Inlet

NOTE—The black faced type indicates the most efficient point of operation for each pressure.

Guaranteed for Standard Air: Pressure 29.92 inches. Temperature 68° F.

(TYPE HV FANS)
77% EFFICIENT

(CLARGE)

No. 5½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1/4" S. P.		5/8" S. P.		1/2" S. P.		3/4" S. P.		7/8" S. P.		1" S. P.		1 1/4" S. P.		1 1/2" S. P.		1 3/4" S. P.		2" S. P.		2 1/2" S. P.		3" S. P.	
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.												
26,050	1000	80	1.95	94	2.48	106	3.25	118	3.91	130	4.56	130	4.95	139	6.25	150	7.16	149	7.82	168	9.75	184	12.4	199	15.6
28,655	1100	84	2.35	95	3.13	107	3.78	118	4.43	119	4.82	130	5.73	139	6.12	139	7.04	149	8.46	167	10.4	184	12.4	199	15.6
31,260	1200	87	3.00	98	3.78	109	4.43	119	5.34	120	5.70	122	6.25	131	7.03	140	7.82	149	9.38	166	11.2	183	13.1	199	15.6
33,865	1300	91	3.52	102	4.17	111	4.70	120	5.34	122	5.82	124	7.16	134	7.82	142	8.60	149	11.7	155	12.5	168	15.0	182	16.7
36,470	1400	95	4.16	104	5.82	113	5.34	122	6.25	124	7.16	134	7.82	142	8.60	149	11.7	155	12.5	168	15.0	182	16.7	197	18.6
39,075	1500	99	4.82	108	5.47	116	6.42	124	7.16	134	9.90	142	10.9	149	11.7	155	12.5	168	15.0	182	16.7	197	18.6	197	18.6
41,680	1600	103	5.34	112	6.38	120	7.17	128	7.82	136	8.85	143	9.76	150	10.4	166	12.4	182	14.1	198	16.4	214	19.0	241	25.4
44,285	1700	107	6.26	116	7.17	123	7.82	131	9.12	139	9.90	144	10.6	152	11.5	167	13.3	182	15.4	197	17.6	213	20.2	239	26.8
46,890	1800	111	7.16	120	8.20	127	9.12	134	9.90	142	10.9	149	11.7	155	12.5	168	15.0	182	16.7	197	18.6	211	21.5	239	26.8
49,495	1900	124	9.11	131	10.2	138	11.1	144	12.3	151	13.0	158	13.9	171	16.2	183	18.0	197	20.6	210	22.8	238	28.4	264	33.9
52,100	2000	128	10.3	135	11.3	142	12.5	149	13.6	155	14.9	160	15.6	172	17.6	184	20.1	197	22.2	211	24.8	235	30.0	261	35.2
57,310	2200	143	14.3	150	15.4	155	16.7	162	17.7	167	19.0	179	21.5	190	23.5	201	25.5	212	28.4	235	33.4	258	39.1	261	47.7
62,520	2400	152	17.6	158	19.0	163	20.3	170	21.6	175	22.8	186	25.3	195	26.7	205	30.0	215	32.3	235	37.5	256	43.5	261	47.7
67,730	2600	166	23.0	172	24.5	178	25.8	182	27.1	192	29.8	202	31.6	211	34.7	220	37.3	239	42.8	258	48.8	261	54.7	261	54.7
72,940	2800	181	29.3	186	31.8	191	31.5	201	34.8	208	36.9	218	40.4	227	43.3	243	49.0	243	54.7	261	54.7	261	54.7	261	54.7
78,150	3000	207	43.1	207	46.7	207	46.7	208	40.8	215	43.1	217	46.7	223	46.9	233	49.6	241	56.8	254	62.6	270	69.6	275	78.2
83,360	3200	215	50.0	215	53.7	215	50.0	215	41.7	215	41.7	215	50.0	225	53.7	231	57.1	239	60.7	247	64.4	262	71.6	275	78.2
88,570	3400	225	53.7	225	57.1	225	53.7	225	41.7	225	41.7	225	50.0	225	53.7	231	57.1	239	60.7	247	64.4	262	71.6	275	78.2

No. 5½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1/4" S. P.		5/8" S. P.		1/2" S. P.		3/4" S. P.		7/8" S. P.		1" S. P.		1 1/4" S. P.		1 1/2" S. P.		1 3/4" S. P.		2" S. P.		2 1/2" S. P.		3" S. P.	
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.												
26,050	1000	77	1.91	90	2.35	102	3.00	115	3.65	126	4.44	138	4.97	147	6.27	165	8.36	182	9.00	197	11.6	207	17.7	229	25.5
28,655	1100	80	2.09	92	3.27	104	4.05	115	4.18	126	4.83	136	5.35	145	6.80	165	8.36	182	9.00	197	11.6	207	17.7	229	25.5
31,260	1200	83	2.61	94	3.27	104	4.05	115	4.70	126	5.23	136	6.00	145	8.36	165	8.36	182	9.00	197	11.6	207	17.7	229	25.5
33,865	1300	87	3.27	97	3.92	106	4.65	116	5.23	126	5.88														

(CLARAGE)

No. 6 Type HV Fan, Single Width, Single Inlet

No. 6 Type HV Fan, Single Width, Double Inlet

Notes may be handwritten or typed, indicating the name, address, and telephone number.

Values Generated from Standard Aims: Transmissions from *Wu-chia* to *Tung-shan*

(TYPE HV FANS)
77% EFFICIENT

CLARAGE

No. 6½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	½" S. P.		⅜" S. P.		⅓" S. P.		⅕" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.	
		R. P. M.	B. P. M.	R. B.	B. P. M.	R. H. P.	B. H. P.	R. P. M.	B. P. M.	R. H. P.	B. H. P.	R. P. M.	B. P. M.	R. H. P.	B. H. P.	R. P. M.	B. P. M.	R. H. P.	B. H. P.
36,350	1000	68	2.73	79	3.45	89	4.55	99	5.55	110	6.90	118	8.72	127	10.0	143	13.6	156	17.3
39,985	1100	71	3.27	81	4.36	90	5.27	99	6.35	110	8.00	118	8.72	127	10.0	142	14.5	140	15.6
43,620	1200	73	4.18	85	5.27	91	6.18	100	6.73	110	8.00	118	8.72	127	10.0	126	11.8	113	12.0
47,255	1300	77	4.90	86	5.82	94	6.55	102	7.45	110	8.55	118	9.82	126	10.8	143	13.6	142	14.5
50,890	1400	80	5.82	88	6.72	96	7.45	103	8.25	111	9.81	118	10.8	126	11.8	142	14.5	140	15.6
54,525	1500	84	6.72	92	7.63	98	8.55	105	10.0	113	10.8	120	12.0	126	13.1	140	15.6	155	18.2
58,160	1600	87	7.45	95	8.90	102	10.0	109	10.9	115	12.4	121	13.6	127	14.5	140	17.3	154	19.6
61,795	1700	91	8.72	98	10.0	104	10.9	111	12.7	118	13.8	122	14.7	129	16.0	142	18.5	154	21.5
65,430	1800	94	10.0	102	11.5	108	12.7	113	13.8	120	15.3	126	16.4	131	17.4	143	20.7	154	23.3
69,065	1900	105	12.8	111	14.2	117	15.4	122	17.1	128	18.2	133	19.5	145	22.5	155	25.1	166	28.0
72,700	2000	108	14.4	114	15.8	120	17.5	126	18.9	131	20.7	136	21.8	146	24.5	156	28.0	166	30.9
79,970	2200	121	20.0	127	21.4	131	23.3	137	24.7	141	26.5	152	30.0	161	32.7	170	35.6	179	39.6
87,240	2400	129	24.6	133	26.5	138	28.4	144	30.3	148	31.8	157	35.2	165	37.4	174	41.8	182	45.0
94,510	2600	140	32.0	146	34.2	151	36.0	154	37.8	163	41.8	171	44.4	179	48.4	187	52.0	199	59.6
101,780	2800	153	40.6	157	42.9	162	44.0	170	48.7	177	51.6	184	56.3	192	60.4	206	68.4	221	76.4
109,050	3000	160	52.0	175	55.5	180	58.2	185	61.6	190	65.4	197	74.5	204	79.3	215	87.3	229	97.2
116,320	3200	171	60.5	182	63.8	190	75.3	196	80.0	203	84.8	209	90.0	222	90.0	233	109.0	233	109.0
123,590	3400	182	70.0	197	75.5	202	80.0	209	85.0	216	90.0	222	90.0	233	109.0	233	109.0	233	109.0

No. 6½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	½" S. P.		⅜" S. P.		⅓" S. P.		⅕" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.		⅛" S. P.	
		R. P. M.	B. P. M.	R. B.	B. P. M.	R. H. P.	B. H. P.	R. P. M.	B. P. M.	R. H. P.	B. H. P.	R. P. M.	B. P. M.	R. H. P.	B. H. P.	R. P. M.	B. P. M.	R. H. P.	B. H. P.
36,350	1000	65	2.65	76	3.27	86	4.18	97	5.10	106	6.18	116	6.91	124	8.73	139	11.6	139	11.6
39,985	1100	67	2.91	78	4.00	87	4.91	97	5.81	106	6.72	115	7.46	124	9.46	139	11.6	139	11.6
43,620	1200	70	3.64	79	4.54	88	5.63	97	6.55	106	7.26	115	8.36	123	9.46	139	11.6	139	11.6
47,255	1300	73	4.54	82	5.45	89	6.47	98	7.27	106	8.18	115	9.27	123	10.4	138	12.5	137	13.6
50,890	1400	76	5.45	84	6.37	92	7.20	100	8.18	107	9.08	115	10.2	123	11.3	137	13.6	151	16.2
54,525	1500	79	6.36	87	7.27	94	8.00	102	9.08	109	10.0	116	11.3	123	12.3	137	14.7	150	17.3
58,160	1600	82	7.27	90	8.18	97	9.08	104	10.2	111	11.3	118	12.5	124	13.6	137	16.0	150	18.5
61,795	1700	86	8.18	93	9.27	100	10.4	106	11.4	112	12.7	119	13.8	124	15.1	137	17.5	150	20.2
65,430	1800	89	9.08	96	10.4	103	11.7	109	12.7	114	14.0	121	15.5	127	16.7	138	19.1	150	21.8
69,065	1900	93	10.4	98	12.0	106	13.4	111	14.4	117	15.6	123	17.1	129	18.5	139	20.9	151	23.6
72,700	2000	102	13.1	108	14.7	113	16.0	119	17.3	125	18.5	130	20.7	141	22.7	152	25.4	161	27.7
79,970	2200	110	17.1	115	18.2	119	19.6	125	21.3	130	22.7	144	24.3	154	27.1	174	30.4	164	33.3
87,240	2400	122	22.5	125	24.0	131	25.5	136	27.7	13									

CLARAGE

No. 7 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}$ " S. P.		$\frac{3}{8}$ " S. P.		$\frac{1}{2}$ " S. P.		$\frac{5}{8}$ " S. P.		$\frac{3}{4}$ " S. P.		$\frac{7}{8}$ " S. P.		$1\frac{1}{4}$ " S. P.		$1\frac{1}{2}$ " S. P.		$1\frac{3}{4}$ " S. P.		$2\frac{1}{2}$ " S. P.		$2\frac{1}{2}$ " S. P.		3 " S. P.							
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.																		
42,150	1000	63	3.16	74	4.02	83	5.28	92	6.33	102	8.02	109	10.1	118	11.6	117	12.7	132	15.8	145	20.1	144	21.1	157	25.3	168	30.5	189	41.2		
46,365	1100	66	3.80	75	5.07	84	6.12	92	7.40	102	9.36	109	10.1	118	11.6	117	12.7	131	16.9	145	20.1	144	21.1	157	25.3	168	32.7	189	43.5		
50,580	1200	69	4.86	77	6.12	85	7.17	93	7.80	102	9.36	109	10.1	118	11.6	117	12.7	131	17.7	131	16.9	145	20.1	144	21.1	157	25.3	168	32.7	189	43.5
54,795	1300	72	5.70	80	6.75	87	7.60	95	8.65	102	9.90	109	11.4	117	12.7	132	15.8	130	21.5	143	24.9	155	28.5	167	32.7	189	41.2	52.8			
59,010	1400	75	6.75	82	7.80	89	8.65	96	10.1	103	11.4	110	12.7	111	13.9	117	15.2	130	18.2	143	27.0	155	30.6	166	34.8	188	43.5	208	52.8		
63,225	1500	78	7.81	85	8.87	92	9.90	98	11.6	105	12.7	111	13.9	117	15.2	130	18.2	130	24.1	143	27.0	155	30.6	166	34.8	188	43.5	208	52.8		
67,440	1600	81	8.65	88	10.3	95	11.6	101	12.7	107	14.4	112	15.8	118	16.9	130	20.1	143	22.8	155	26.6	168	30.5	189	41.2	52.8					
71,655	1700	84	10.1	91	11.6	97	12.7	103	14.8	109	16.1	114	17.1	120	18.6	131	21.5	143	24.9	155	28.5	167	32.7	189	41.2	52.8					
75,870	1800	87	11.6	95	13.3	100	14.8	105	16.1	112	17.7	117	19.0	122	20.3	132	24.1	143	27.0	155	30.6	166	34.8	188	43.5	208	52.8				
80,085	1900	90	12.7	103	14.8	108	16.5	108	18.0	114	19.8	119	21.1	124	22.6	135	26.1	144	29.1	155	32.9	165	36.9	187	46.0	207	55.0				
84,300	2000	92	13.3	101	16.7	106	18.4	112	20.3	117	22.0	122	24.1	126	25.3	136	28.5	145	32.5	155	35.8	165	40.1	185	48.5	205	55.0				
92,730	2200	92	13.3	112	23.2	118	24.9	122	27.0	127	28.7	127	30.8	141	34.8	149	38.0	157	41.3	167	46.0	185	54.0	205	63.3	205	63.3				
101,160	2400	100	14.8	120	28.5	124	30.8	128	32.9	133	35.0	137	36.9	146	41.0	153	43.5	161	48.5	169	52.3	185	60.8	203	70.5	205	70.5				
109,590	2600	100	14.8	131	37.1	136	39.6	140	41.8	146	47.2	146	49.8	150	51.0	158	56.6	164	60.0	172	65.5	179	70.0	191	79.3	205	88.7				
118,020	2800	100	14.8	142	47.2	142	47.2	146	49.8	146	49.8	150	51.0	158	56.6	164	60.0	172	65.5	179	70.0	191	79.3	205	88.7	205	88.7				
126,450	3000	100	14.8	152	57.9	157	59.6	164	66.3	169	70.5	177	76.0	176	81.0	182	87.5	182	93.0	188	98.5	194	104.0	206	116.0	216	126.5				
134,880	3200	100	14.8	159	67.5	163	70.0	169	71.0	176	76.0	176	81.0	182	87.5	182	93.0	188	98.5	194	104.0	206	116.0	216	126.5	216	126.5				
143,310	3400	100	14.8	169	87.5	176	91.0	182	93.0	188	98.5	194	104.0	206	116.0	216	126.5	216	126.5	216	126.5	216	126.5	216	126.5	216	126.5				

No. 7 Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}$ " S. P.		$\frac{3}{8}$ " S. P.		$\frac{1}{2}$ " S. P.		$\frac{5}{8}$ " S. P.		$\frac{3}{4}$ " S. P.		$\frac{7}{8}$ " S. P.		$1\frac{1}{4}$ " S. P.		$1\frac{1}{2}$ " S. P.		$1\frac{3}{4}$ " S. P.		2 " S. P.		$2\frac{1}{2}$ " S. P.		3 " S. P.	
		R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.												
42,150	1000	61	3.08	71	3.79	80	4.85	90	5.90	99	7.1														

(CLARAGE)

No. 7½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1¼" S. P.		3/8" S. P.		½" S. P.		5/8" S. P.		¾" S. P.		7/8" S. P.		1" S. P.		1 ½" S. P.		1 ¾" S. P.		2" S. P.		2 ½" S. P.		3" S. P.					
		R. P. M.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.					
48,400	1000	59	3.64	69	4.60	78	6.07	86	7.27	95	9.20	102	11.7	110	13.3	109	14.6	124	18.2	23.0	30.5	157	35.4	... ...	...		
53,240	1100	62	4.37	70	5.82	79	7.03	87	8.96	95	10.7	102	11.7	110	13.3	109	15.8	123	19.4	135	37.6	177	47.3	... ...	...		
58,080	1200	64	5.58	72	7.03	79	8.23	87	8.48	95	10.7	102	13.1	102	14.6	109	15.8	123	24.7	133	37.6	177	47.3	... ...	...		
62,920	1300	67	6.54	75	7.75	81	8.72	88	9.90	95	11.4	102	13.1	102	14.6	104	16.0	109	17.5	122	24.3	146	29.1	... ...	...		
67,760	1400	70	7.75	77	8.97	83	9.90	90	11.6	96	13.1	102	14.6	104	16.0	104	16.0	109	17.5	122	24.3	146	29.1	... ...	...		
72,600	1500	73	8.97	80	10.2	85	11.4	91	13.4	98	14.6	104	13.4	104	16.0	104	16.0	109	17.5	122	24.3	146	29.1	... ...	...		
77,440	1600	76	9.90	83	11.9	88	13.3	94	14.6	100	16.5	105	18.2	110	19.4	122	23.0	133	26.2	145	30.5	157	35.4	... ...	...		
82,280	1700	79	11.6	86	13.3	90	14.6	96	17.0	102	18.4	106	19.7	112	21.3	122	24.7	133	28.6	144	32.7	156	37.6	177	47.3				
87,120	1800	82	13.4	89	15.3	93	17.0	98	18.4	104	20.4	109	21.8	114	23.3	123	27.6	133	31.0	144	35.2	155	40.0	175	50.0	194	60.6		
91,960	1900	91	17.0	96	18.9	101	20.8	106	22.8	111	24.3	116	26.0	125	30.1	134	33.5	144	37.8	154	42.4	174	52.9	193	63.0		
96,800	2000	94	19.1	99	21.1	104	23.3	109	25.2	114	27.6	118	29.1	127	32.7	135	37.3	144	41.2	155	46.0	173	55.7	191	65.4		
106,480	2200	105	26.7	110	28.6	114	31.0	119	33.0	122	35.4	131	40.0	139	43.7	147	47.5	156	52.9	173	62.0	189	72.7	... ...	...		
116,160	2400	112	32.7	113	35.4	120	37.8	125	40.3	128	42.5	136	47.0	143	50.0	151	55.7	158	60.1	173	69.9	189	81.0	... ...	...		
125,840	2600	122	42.7	127	45.6	130	48.0	133	50.5	141	55.7	148	59.1	155	64.5	162	69.3	175	75.9	189	90.7	102.0	110.1	119.1	120.0	129.5	145.5		
135,520	2800	132	54.3	136	57.2	140	58.7	147	65.0	153	68.8	167	75.1	167	80.5	178	81.1	178	89.5	182	120.0	192	133.5	202	145.5	129.5	116.3	129.5	
145,200	3000	142	66.4	145	68.8	153	76.0	158	87.2	163	93.0	165	101.0	170	107.0	175	113.0	171	176	192	103.0	194	114.5	129.5	116.3	129.5	109.0	120.0	
154,880	3200	148	77.5	152	80.5	159	87.2	163	93.0	165	101.0	170	107.0	175	113.0	171	176	192	103.0	194	114.5	129.5	116.3	129.5	109.0	120.0			
164,560	3400	158	93.0	165	101.0	170	107.0	175	113.0	171	176	192	103.0	194	114.5	129.5	116.3	129.5	109.0	120.0	192	103.0	194	114.5	129.5	116.3	129.5	109.0	120.0

No. 7½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1¼" S. P.		3/8" S. P.		½" S. P.		5/8" S. P.		¾" S. P.		7/8" S. P.		1" S. P.		1 ½" S. P.		1 ¾" S. P.		2" S. P.		2 ½" S. P.		3" S. P.			
		R. P. M.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	B. P. M.	R. B.	R. B.	P. M.	R. B.	B. P. M.	R. B.			
48,400	1000	57	3.53	66	4.37	75	5.58	85	6.80	92	8.25	101	9.22	108	11.7	107	12.6	121	15.5	155	177	189	209	220	230	240	250
53,240	1100	59	3.87	67	5.35	76	6.55	85	7.75	92	9.97	100	9.70	107	11.2	107	12.6	121	15.5	155	177	189	209	220	230	240	250
58,080	1200	61	4.84	69	6.06	77	7.52	85	8.73	92	9.70	100	11.2	107	12.6	121	15.5	155	177	189	209	220	230	240	250	260	270
62,920	1300	64																									

(CLARAGE)

No. 8 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.		Outlet Velocity Feet per Min.		$\frac{1}{4}''$ S. P.		$\frac{3}{8}''$ S. P.		$\frac{5}{8}''$ S. P.		$\frac{3}{4}''$ S. P.		$1\frac{1}{2}''$ S. P.		$2''$ S. P.		$2\frac{1}{2}''$ S. P.		$3''$ S. P.	
R. P. M.	B. H. P.	R. B. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.	R. P. M.	B. H. P.
55,000	1000	55	4.13	64	5.23	73	6.88	81	8.25	81	9.62	89	10.5	96	12.1	103	13.2	96	15.1
60,500	1100	58	4.95	65	6.60	74	7.98	81	9.62	89	10.2	89	10.5	82	10.2	103	13.2	96	13.2
66,000	1200	60	6.33	67	7.98	75	9.35	82	10.2	89	12.1	102	14.8	96	16.5	102	17.9	102	19.8
71,500	1300	63	7.43	70	8.80	76	9.90	83	11.3	89	12.9	96	14.8	96	16.5	102	17.2	102	19.2
77,000	1400	65	8.80	72	10.2	78	11.3	84	13.2	90	14.8	98	18.2	98	16.5	98	12.9	92	15.1
82,500	1500	68	10.2	75	11.6	80	12.9	86	15.1	92	16.5	98	18.2	137	27.5	137	33.0	137	33.0
88,000	1600	71	11.3	77	13.5	83	15.1	88	16.5	94	18.7	99	20.6	103	22.0	114	22.0	114	22.0
93,500	1700	74	13.2	80	15.1	85	16.5	90	19.3	96	20.9	100	22.3	105	24.2	115	32.4	132	37.1
99,000	1800	76	15.1	83	17.3	88	19.3	92	20.9	97	23.1	102	24.7	107	26.4	116	35.2	135	39.8
104,500	1900	80	17.2	88	19.2	90	21.5	95	23.4	99	25.9	104	27.3	109	29.4	118	38.0	126	42.9
110,000	2000	82	19.1	93	21.7	93	23.9	102	26.4	107	28.6	111	33.0	111	31.4	127	42.3	135	46.8
121,000	2200	88	21.0	98	23.0	103	25.9	111	37.4	115	40.2	123	45.3	130	49.5	138	53.9	146	60.0
132,000	2400	91	22.9	102	24.9	108	27.1	117	45.7	120	48.2	128	53.3	134	56.7	141	63.2	148	68.2
143,000	2600	94	24.8	105	26.8	114	29.4	124	54.5	125	57.3	133	63.2	143	67.1	145	73.2	152	78.8
154,000	2800	98	26.7	108	28.7	117	32.4	131	65.0	131	66.6	138	73.8	143	71.7	150	85.3	156	91.3
165,000	3000	102	28.6	111	30.6	120	35.3	142	66.5	142	68.0	153	79.0	149	81.3	159	91.3	155	105.5
176,000	3200	106	30.5	115	32.5	124	38.0	148	71.0	148	73.0	160	86.0	159	91.3	165	128.0	170	136.0
187,000	3400	110	32.4	119	34.4	128	40.7	155	78.1	155	81.0	160	99.0	147.0	105.0	170	121.0	151.0	165.0

No. 8 Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	1/4" S. P.			3/8" S. P.			1/2" S. P.			5/8" S. P.			3/4" S. P.		
		R. P. M.	B. H. P.	R. P. M.	R. B.	R. H. P.										
55,000	1000	53	4.02	62	4.95	70	6.33	79	7.70	86	9.35	94	10.5	101	13.2	101
60,500	1100	55	4.40	63	6.03	71	7.43	79	8.82	86	10.2	93	11.3	93	12.7	100
66,000	1200	57	5.50	64	6.88	72	8.53	79	9.90	86	11.0	93	12.3	113	17.6	100
71,500	1300	60	6.89	66	8.25	73	9.80	80	11.0	86	12.3	93	14.0	100	15.7	112
77,000	1400	62	8.25	68	9.63	75	10.9	81	12.3	87	13.7	93	15.4	100	17.1	111
82,500	1500	64	9.62	71	11.0	76	12.0	83	13.7	88	15.1	94	17.1	100	18.7	111
88,000	1600	66	11.0	73	12.3	79	13.7	85	15.4	90	17.1	95	19.0	101	20.6	111
93,500	1700	70	12.3	75	14.0	81	15.7	86	17.3	97	20.9	101	22.8	101	25.4	121
99,000	1800	72	13.8	78	15.7	83	17.9	88	19.3	93	21.2	98	23.4	103	25.3	140
104,500	1900	75	15.7	80	18.1	86	20.4	90	21.7	95	23.7	105	25.9	105	28.0	122
110,000	2000	80	19.8	82	19.8	88	22.3	92	24.2	97	26.2	106	30.8	114	30.8	140
121,000	2200	89	25.8	94	27.5	96	29.7	102	32.2	105	34.4	108	36.8	117	36.8	145
132,000	2400	99	34.1	102	38.5	107	41.8	113	44.0	121	47.4	110	49.5	118	51.2	125
143,000	2600	108	44.0	108	44.0	108	47.4	111	51.2	125	56.7	120	59.4	122	56.7	130
154,000	2800	117	56.7	117	56.7	117	59.4	122	61.6	130	67.2	136	73.2	142	77.7	148
165,000	3000	125	68.7	128	71.5	135	78.7	140	84.2	146	89.2	151	96.3	164	109.0	176
176,000	3200	132	82.5	132	82.5	132	90.8	145	96.8	151	103.5	167	123.2	178	136.5	181
187,000	3400	139	96.3	139	96.3	139	104.5	150	110.0	155	118.3	160	126.5	170	138.6	151.3

NOTE.—The black faced tway indicates the most efficient point of orientation for each successive

Values Guaranteed for Standard Div. Temperature 68° F. • Progressive no. 00 inches. Weight oz.

(TYPE HV FANS)
77% EFFICIENT

(CLARAGE)

No. 8½ Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	¾" S. P.		½" S. P.		⅓" S. P.		⅙" S. P.		⅛" S. P.									
		R. P. M.	B. H. P.																
62,100	1000	52	4.65	61	5.90	68	7.25	76	9.32	84	11.8	97	14.9	97	17.1	90	14.9	97	17.1
68,310	1100	54	5.60	62	7.45	69	9.00	76	10.9	84	13.7	90	14.9	97	17.1	77	11.5	84	13.7
74,520	1200	56	7.15	63	9.00	70	10.6	77	11.5	84	13.7	90	14.9	97	17.1	77	11.5	84	13.7
80,730	1300	59	8.40	66	10.0	72	11.2	78	12.7	84	14.6	90	16.8	96	18.6	90	20.2	108	23.3
86,940	1400	61	10.0	68	11.5	73	12.7	79	14.9	85	16.8	90	18.6	96	20.2	92	20.5	107	29.5
93,150	1500	64	11.5	70	13.1	75	14.6	80	17.1	87	18.6	92	20.5	96	22.4	107	26.7	118	31.1
99,360	1600	67	12.7	73	15.2	78	17.1	83	18.6	88	21.1	93	23.3	97	24.8	107	29.5	118	33.5
105,570	1700	69	14.9	75	17.1	80	18.6	85	21.7	90	23.6	94	25.2	99	27.3	108	31.7	118	36.6
111,780	1800	72	17.1	78	19.6	82	21.7	87	23.6	92	26.1	96	28.0	101	29.8	109	35.4	118	39.7
117,990	1900	80	21.7	85	24.2	89	26.4	94	29.2	98	31.1	102	33.2	111	38.5	119	42.8	127	48.4
124,200	2000	83	24.5	88	27.0	92	29.8	96	32.3	101	35.2	104	37.3	112	41.9	120	47.8	127	52.8
136,620	2200	93	34.2	97	36.6	101	39.8	105	42.2	108	45.3	116	51.2	123	55.9	130	60.9	138	67.8
149,040	2400	99	41.9	102	45.3	106	48.5	110	51.5	113	54.3	120	60.2	127	64.0	133	71.5	139	77.0
161,460	2600	107	54.6	112	58.4	115	61.5	118	64.7	125	71.5	131	75.7	137	82.5	143	88.8	155	102.0
173,880	2800	117	69.5	120	73.3	124	75.0	139	83.2	135	88.2	141	96.3	147	103.0	158	117.0	169	130.5
186,300	3000	126	99.5	134	103.0	134	103.0	140	111.7	145	119.0	151	127.5	156	135.5	155	144.8	160	153.5
198,720	3200	134	150	134	150	134	150	139	150	139	150	136.5	155	144.8	160	153.5	170	171.0	
211,140																			186.5

No. 8½ Type HV Fan, Single Width, Double Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	¾" S. P.		½" S. P.		⅓" S. P.		⅙" S. P.		⅛" S. P.									
		R. P. M.	B. H. P.																
62,100	1000	50	4.54	58	5.60	66	7.15	74	8.70	81	10.6	89	11.8	95	14.9	16.1	10.6	19.9	
68,310	1100	52	4.96	59	6.83	67	8.38	74	9.95	81	11.5	88	12.6	94	16.3	17.4	10.6	19.9	
74,520	1200	54	6.21	61	7.77	68	9.62	74	11.2	81	12.4	88	14.3	94	16.1	10.6	19.9		
80,730	1300	56	7.78	62	9.32	69	11.0	75	12.4	81	14.0	88	15.8	94	17.7	10.5	21.4		
86,940	1400	58	9.32	64	10.9	70	12.3	76	14.0	82	15.5	88	17.4	94	19.2	10.4	23.3		
93,150	1500	61	10.9	67	12.4	72	13.7	78	15.5	83	17.1	89	19.2	94	21.1	10.4	25.1		
99,360	1600	62	12.4	69	14.0	74	15.5	80	17.4	85	19.2	90	21.4	95	23.3	11.5	27.6		
105,570	1700	66	14.0	71	15.8	76	17.7	81	19.5	86	21.7	91	23.6	95	25.8	10.4	31.5		
111,780	1800	68	15.5	73	17.7	79	20.5	83	21.8	87	23.9	93	26.4	97	28.6	10.5	32.6		
117,990	1900	71	17.7	75	20.5	81	23.0	85	24.5	89	26.7	94	29.2	98	31.7	10.6	35.7		
124,200	2000	78	22.3	83	25.1	87	27.3	91	29.5	96	31.7	100	34.8	108	38.2	11.6	43.4		
136,620	2200	84	29.2	88	31.0	91	33.5	96	36.3	99	38.8	103	41.6	110	46.3	11.8	51.5		
149,040	2400	86	34.0	94	38.5	96	41.0	101	43.5	104	47.2	107	49.6	114	55.2	120	60.2	127	
161,460	2600	91	49.7	101	49.7	105	53.4	110	64.0	113	67.1	115	69.5	122	75.7	12.8	82.6		
173,880	2800	100	57.0																

(CLARAGE)

No. 9 Type HV Fan, Single Width, Single Inlet

Volume C. F. M.	Outlet Velocity Feet per Min.	$\frac{1}{4}''$ S. P.	$\frac{3}{8}''$ S. P.	$\frac{1}{2}''$ S. P.	$\frac{5}{8}''$ S. P.	$\frac{3}{4}''$ S. P.	$\frac{7}{8}''$ S. P.	$1''$ S. P.	$1\frac{1}{2}''$ S. P.	$1\frac{3}{4}''$ S. P.	$2''$ S. P.	$2\frac{1}{2}''$ S. P.	$3''$ S. P.	
69,600	1000	49	5.23	57	6.62	65	8.70	72	10.5	79	13.2	91	20.9	26.1
76,560	1100	51	6.27	58	8.35	65	10.1	72	12.2	79	15.3	85	16.7	19.2
83,520	1200	53	8.00	60	10.1	66	11.9	73	12.9	79	15.3	85	16.7	92
90,480	1300	56	9.40	62	11.2	68	12.5	74	14.3	79	16.4	85	18.8	91
97,440	1400	58	11.10	64	12.9	69	14.3	75	16.7	80	18.8	85	20.9	91
104,400	1500	61	12.9	66	14.6	71	16.4	76	19.2	82	20.9	87	23.0	91
111,360	1600	63	14.3	69	17.1	74	19.2	78	20.9	84	23.7	88	26.1	92
118,320	1700	65	16.7	71	19.2	75	20.9	80	24.4	85	26.5	88	28.2	93
125,280	1800	68	19.2	74	22.0	78	24.3	82	26.5	87	29.2	91	31.3	95
132,240	1900	76	24.4	80	27.1	84	32.7	88	32.7	92	34.8	97	37.3	105
139,200	2000	78	27.5	83	30.3	87	33.4	91	36.2	95	39.7	98	41.8	106
153,120	2200	87	38.3	91	41.1	95	44.5	99	47.3	102	50.8	110	57.5	116
167,040	2400	93	47.0	96	50.9	100	54.3	104	57.8	107	61.0	114	67.5	119
180,960	2600	102	61.3	105	65.5	109	69.0	111	72.4	118	80.0	123	85.0	129
194,880	2800	111	78.0	114	82.2	117	84.2	123	89.2	128	98.8	133	108.0	131
208,800	3000	119	95.5	121	98.8	128	109.5	132	116.0	137	125.5	142	132.5	152.0
222,720	3200	124	111.3	127	115.5	132	126.0	136	134.0	147	143.0	152.0	155.0	167.0
236,640	3400	132	134.0	134	134.0	137	134.0	144	153.0	141	153.0	146	163.0	172.0

No. 9 Type HV Fan, Single Width, Double Inlet

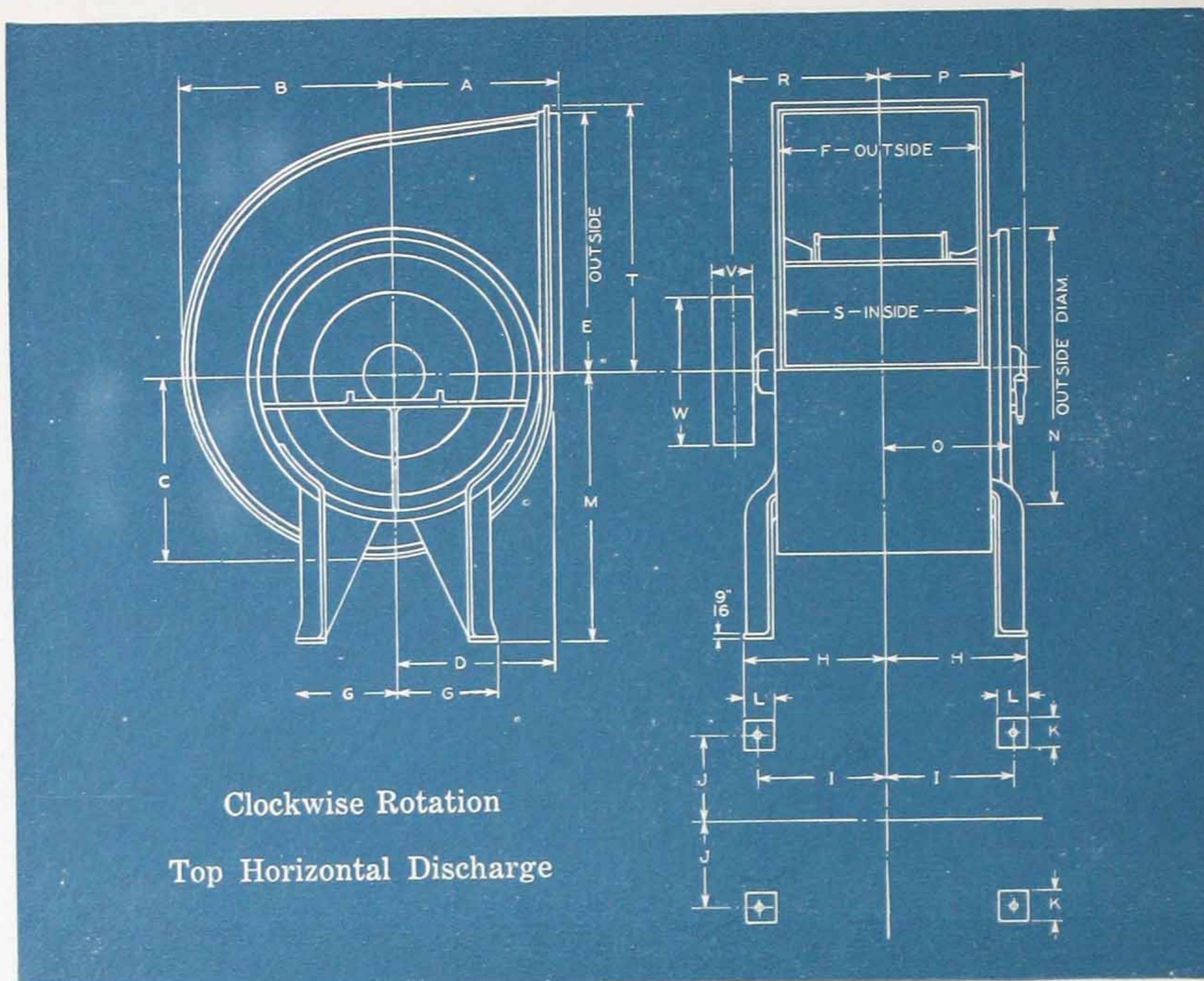
Volume C. F. M.	Outlet Velocity F _{et} per Min.	$\frac{1}{4}''$ S. P.	$\frac{3}{8}''$ S. P.	$\frac{1}{2}''$ S. P.	$\frac{5}{8}''$ S. P.	$\frac{3}{4}''$ S. P.	$\frac{7}{8}''$ S. P.	$1''$ S. P.	$1\frac{1}{2}''$ S. P.	$1\frac{3}{4}''$ S. P.	$2''$ S. P.	$2\frac{1}{2}''$ S. P.	$3''$ S. P.	
69,600	1000	47	5.08	55	6.27	62	8.00	70	9.65	77	11.8	84	13.2	90
76,560	1100	49	5.56	56	7.65	63	9.41	70	11.2	77	12.9	83	14.3	90
83,520	1200	51	6.96	57	8.70	64	10.8	70	12.5	77	13.9	83	16.0	89
90,480	1300	53	8.70	59	10.4	65	12.4	71	13.9	77	15.7	83	17.8	89
97,440	1400	55	10.4	61	12.1	66	13.8	72	15.7	78	17.4	83	19.5	89
104,400	1500	57	12.1	63	13.9	68	15.3	73	17.4	79	19.1	84	21.6	89
111,360	1600	59	13.9	65	15.7	70	17.4	75	19.5	80	21.6	85	24.0	90
118,320	1700	62	15.7	67	17.8	72	19.8	77	22.0	81	24.4	86	26.5	90
125,280	1800	64	17.4	69	19.8	74	22.6	79	24.4	83	26.8	87	29.6	92
132,240	1900	67	19.5	71	23.0	76	25.8	80	27.5	84	30.0	89	32.7	93
139,200	2000	74	25.0	79	28.3	82	30.6	86	33.0	91	35.5	101	40.0	109
153,120	2200	79	32.7	83	34.8	86	37.6	91	40.7	94	43.5	98	46.6	104
167,040	2400	88	43.2	91	46.0	95	48.8	98	53.0	101	55.8	107	62.0	114
180,960	2600	96	55.6	99	60.0	102	62.6	105	64.8	111	72.4	118	79.2	122
194,880	2800	104	71.7	107	75.2	109	78.0	115	85.0	120	92.6	126	98.0	132
208,800	3000	111	87.0	114	94.5	119	109.5	120	114	124	115.0	124	125.5	130
222,720	3200	118	104.5	124	115.0	124	122.5	134	124	139.1	139.2	137	149.8	142
236,640	3400	124	121.8	129	132.3	133	134.0	133	132.8	142	151	152	160.0	160

NOTE—The back faced type indicates the most efficient point of operation for each pressure.

Values Guaranteed for Standard Air: Temperature, 68°F.; Pressure, 29.92 inches; Weight, .07488 lbs. per cu. ft.

(TYPE HV FANS)
77% EFFICIENT

[CLARAGE]



Type HV Fan—Sizes 1½ to 3—Arrangement A
Standard Single Width

Dimension Table
Dimensions are in Inches

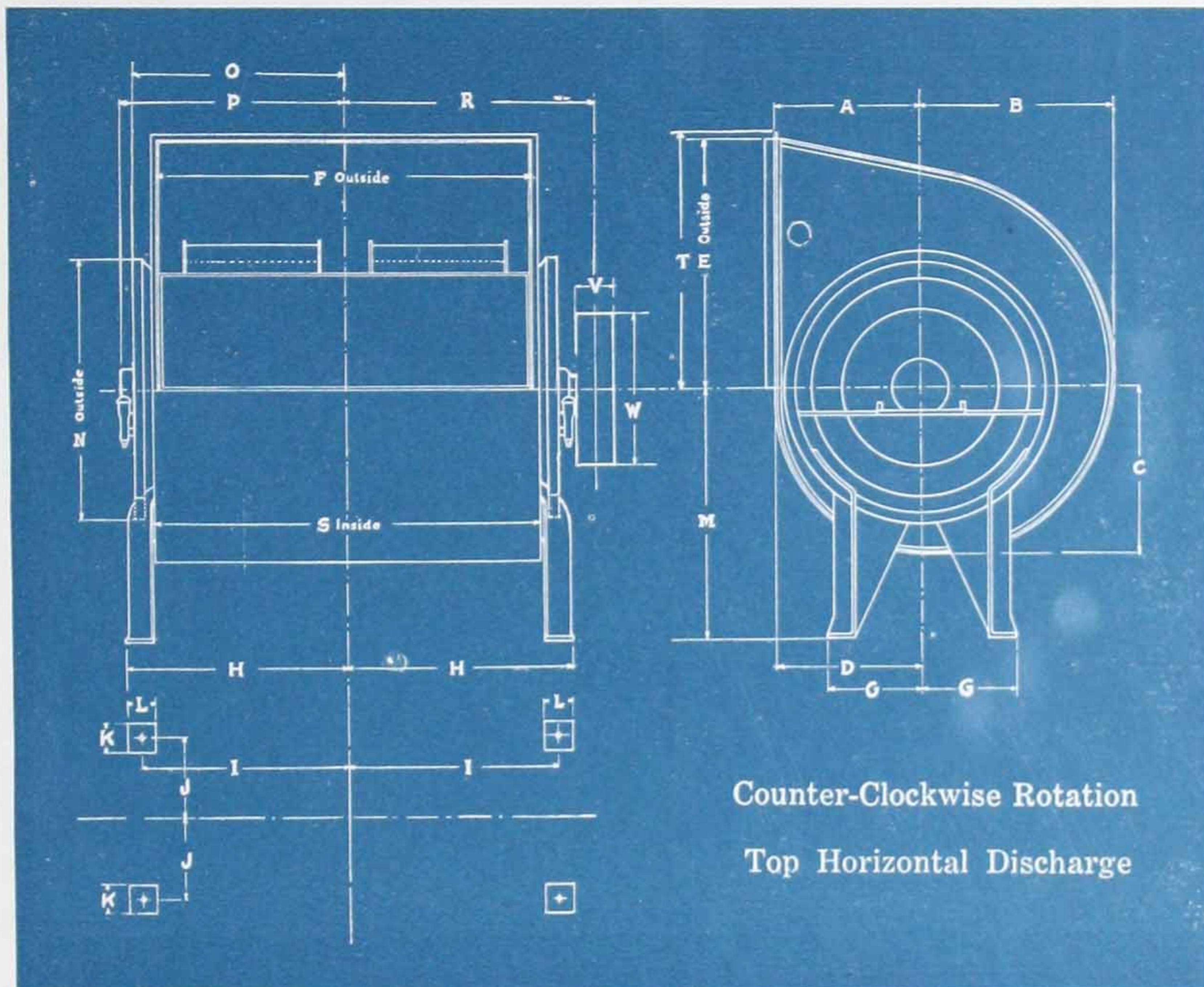
Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	*N	O
1½	14 1/16	16 5/8	14 9/16	12 9/16	19 1/16	14 13/16	7 1/2	11 1/4	10	6 1/4	2 1/2	2 1/2	20 1/2	20 1/4	9 15/16
1¾	15 7/8	19 1/16	16 3/4	14 9/8	22 1/4	17 5/16	8 3/4	12 7/8	11 7/16	7 5/16	2 7/8	2 7/8	23 1/2	23 3/4	11 3/16
2	17 5/8	21 1/2	18 11/16	16 1/8	25 1/4	19 11/16	10	14 7/16	12 13/16	8 3/8	3 1/4	3 1/4	26 3/4	27	12 3/16
2 1/4	19 7/16	24 1/16	21	17 15/16	28 5/8	22 1/8	11 1/4	16	14 3/16	9 7/16	3 5/8	3 5/8	30	30 5/8	14 1/16
2 1/2	21 3/16	26 7/16	23 1/16	19 11/16	31 3/4	24 9/16	12 1/2	17 5/8	15 7/8	10 1/2	4	4	33	34	16 1/4
3	24 7/16	31	27	22 15/16	38 1/8	29 7/16	15	20 9/16	18 7/16	12 3/4	4 1/2	4 1/2	39 1/2	40 3/4	18 3/4

*Diameter of Pipe to fit over Inlet.

Fan Size	P	R	S	T	W	V	AB	AC	AD	AE	KEYWAY		Shaft Diam.	Anchor Bolts
											Wdth.	Dpth.		
1 1/2	11 9/16	13 1/4	14 5/8	20 1/16	8	4	23 1/2	15 9/16	17 5/8	13 9/16	5/16	1/8	1 8/16	5/8
1 3/4	13 3/16	14 3/4	17 1/8	23 1/4	10	4	27 1/16	17 3/16	20 5/16	15 5/8	5/16	1/8	1 5/16	5/8
2	14 5/8	16 1/2	19 1/2	26 1/4	14	5	30 3/8	20 1/4	23	17 9/16	3/8	1/8	1 7/16	5/8
2 1/4	16 7/16	18 1/4	21 3/16	29 5/8	16	5	34	22 9/16	25 5/8	19 1/2	3/8	1/8	1 11/16	5/8
2 1/2	17 3/16	19 1/4	24 3/8	32 3/4	18	5	37 1/2	24 3/4	28 5/16	21 3/16	3/8	1/8	1 11/16	5/8
3	20 9/16	22	29 1/4	39 1/8	22	6	44 1/4	29	33 1/8	25	1/2	1/8	1 15/16	5/8

[TYPE HV FANS]
77% EFFICIENT

(CLARAGE)



Type HV Fan—Sizes 1½ to 3—Arrangement A Standard Double Width

Dimension Table

Dimensions are in Inches

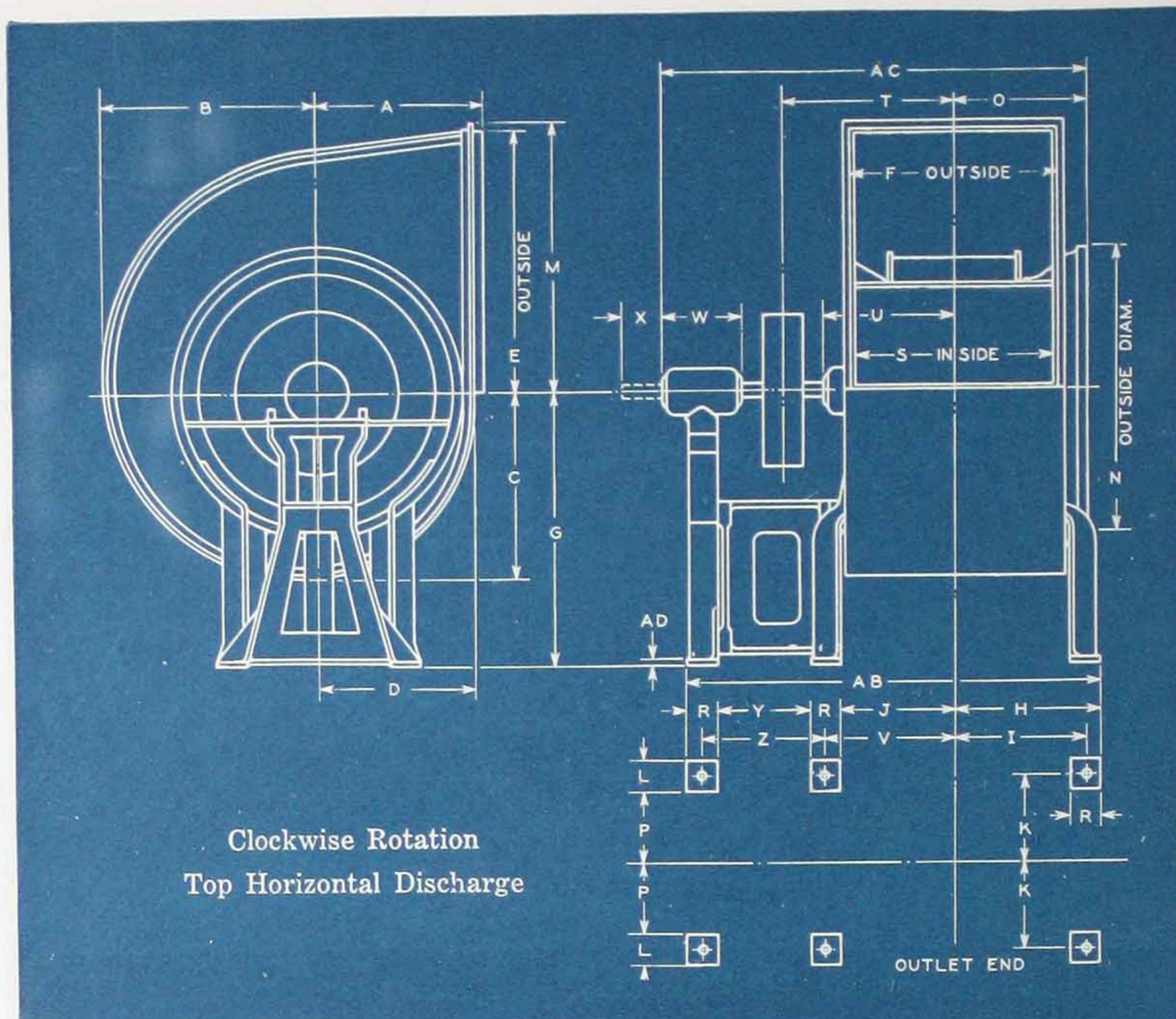
Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M
1½	14 1/16	16 5/8	14 9/16	12 9/16	19 1/16	29 7/16	7 1/2	18 9/16	17 5/16	6 1/4	2 1/2	2 1/2	20 1/2
1¾	15 7/8	19 1/16	16 3/4	14 3/8	22 1/4	34 5/16	8 3/4	21 3/8	19 1/16	7 3/16	2 7/8	2 7/8	23 1/2
2	17 7/8	21 1/2	18 11/16	16 1/8	25 1/4	39 3/16	10	24 3/16	22 9/16	8 3/8	3 1/4	3 1/4	26 3/4
2¼	19 7/16	24 1/16	21	17 15/16	28 5/8	44 1/16	11 1/4	27	25 3/16	9 7/16	3 3/8	3 3/8	30
2½	21 3/16	26 7/16	23 1/16	19 11/16	31 3/4	48 15/16	12 1/2	29 3/16	28 1/16	10 1/2	4	4	33
3	24 7/16	31	27	22 3/16	38 1/8	58 1/16	15	35 1/16	33 1/16	12 3/4	4 1/2	4 1/2	39 1/2

Fan Size	*N	O	P	R	S	T	W	V	KEYWAY		Shaft Diam.	Anchor Bolts
									Width	Depth		
1½	20 1/4	17 1/4	17 3/4	20 1/4	29 1/4	20 1/16	8	5	5/16	1/8	1 3/16	5/8
1¾	23 3/4	19 1/16	20 3/4	23 1/4	34 1/8	23 1/4	10	5	5/16	1/8	1 3/16	5/8
2	27	22 3/16	23 1/8	26	39	26 1/4	14	6	3/8	1/8	1 7/16	5/8
2¼	30 5/8	25 1/16	26 1/4	29 1/4	43 7/8	29 5/8	16	6	3/8	1/8	1 11/16	5/8
2½	34	28 7/16	28 3/8	32	48 3/4	32 1/4	18	7	3/8	1/8	1 11/16	5/8
3	40 3/4	33 3/8	33 1/4	37 1/4	58 1/2	39 1/8	22	8	1/2	1/8	1 1/8	5/8

*Diameter of Pipe to fit over Inlet.

(TYPE HV FANS)
77% EFFICIENT

(CLARGE)



Type HV Fan—Sizes 1½ to 3—Arrangement B Standard Single Width

Dimension Table

Dimensions are in Inches

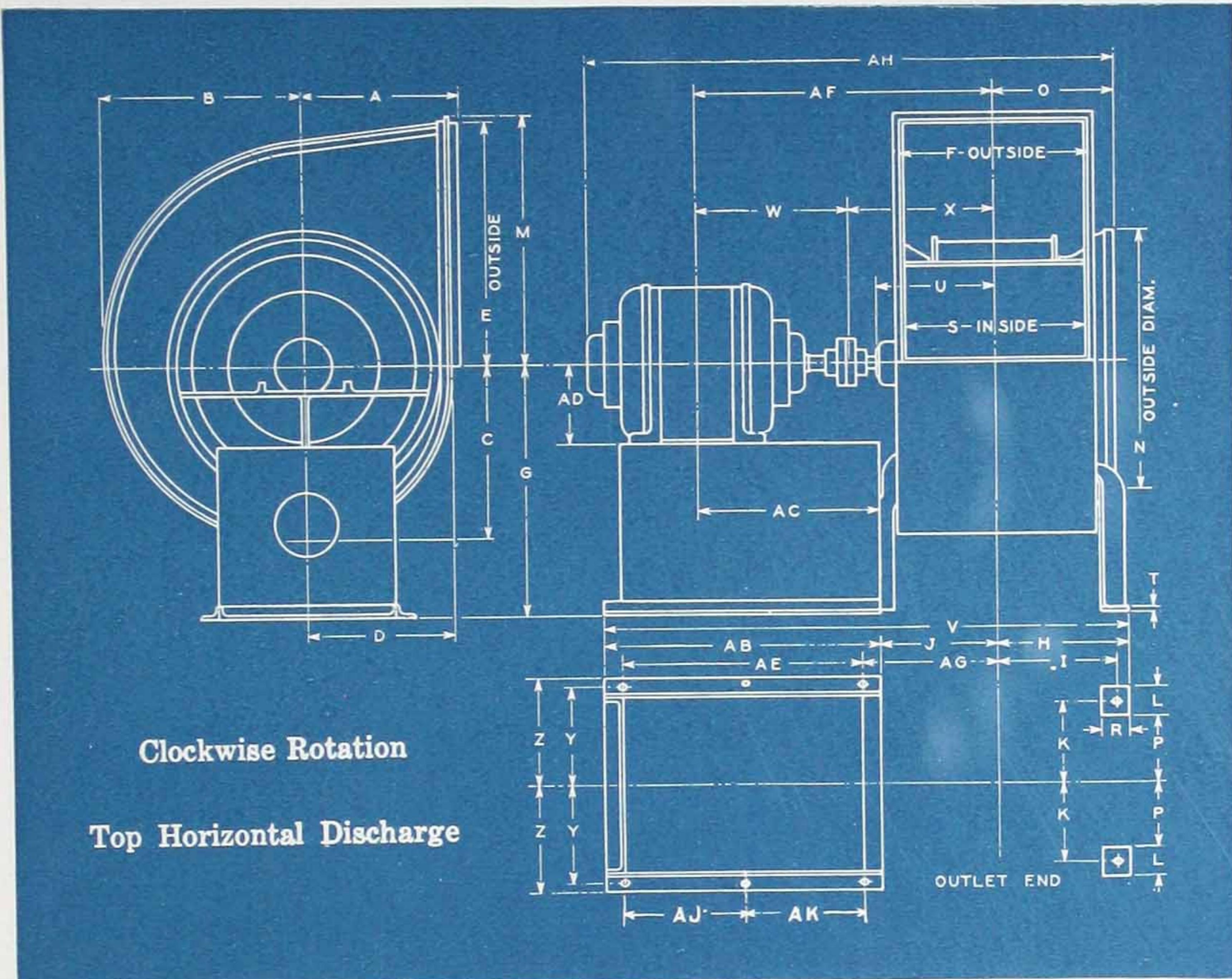
Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	*N	O	P	R	S	T
1½	14 $\frac{1}{16}$	16 $\frac{5}{8}$	14 $\frac{9}{16}$	12 $\frac{2}{16}$	19 $\frac{1}{16}$	14 $\frac{13}{16}$	20 $\frac{1}{2}$	11 $\frac{1}{4}$	10	8 $\frac{3}{4}$	6 $\frac{1}{4}$	2 $\frac{1}{2}$	20 $\frac{1}{16}$	20 $\frac{1}{4}$	9 $\frac{15}{16}$	5	2 $\frac{1}{2}$	14 $\frac{5}{8}$	14
1¾	15 $\frac{7}{8}$	19 $\frac{1}{16}$	16 $\frac{3}{4}$	14 $\frac{3}{8}$	22 $\frac{1}{4}$	17 $\frac{1}{4}$	23 $\frac{1}{2}$	12 $\frac{13}{16}$	11 $\frac{3}{8}$	9 $\frac{5}{16}$	7 $\frac{5}{16}$	2 $\frac{7}{8}$	23 $\frac{1}{4}$	23 $\frac{3}{4}$	11 $\frac{3}{8}$	5 $\frac{7}{8}$	2 $\frac{7}{8}$	17 $\frac{1}{16}$	16 $\frac{1}{4}$
2	17 $\frac{5}{8}$	21 $\frac{1}{2}$	18 $\frac{3}{16}$	16 $\frac{1}{8}$	25 $\frac{1}{4}$	19 $\frac{11}{16}$	26 $\frac{3}{4}$	14 $\frac{7}{16}$	12 $\frac{13}{16}$	11 $\frac{3}{16}$	8 $\frac{3}{8}$	3 $\frac{1}{4}$	26 $\frac{1}{4}$	27	12 $\frac{9}{16}$	6 $\frac{3}{4}$	3 $\frac{1}{4}$	19 $\frac{1}{2}$	17
2½	19 $\frac{7}{16}$	24 $\frac{1}{16}$	21	17 $\frac{5}{16}$	28 $\frac{5}{8}$	22 $\frac{1}{8}$	30	16	14 $\frac{3}{16}$	12 $\frac{3}{8}$	9 $\frac{7}{16}$	3 $\frac{5}{8}$	29 $\frac{5}{8}$	30 $\frac{5}{8}$	14 $\frac{1}{16}$	7 $\frac{5}{8}$	3 $\frac{5}{8}$	21 $\frac{5}{16}$	19 $\frac{3}{4}$
2½	21 $\frac{3}{16}$	26 $\frac{7}{16}$	23 $\frac{1}{16}$	19 $\frac{1}{16}$	31 $\frac{3}{4}$	24 $\frac{9}{16}$	33	17 $\frac{5}{8}$	15 $\frac{7}{8}$	13 $\frac{5}{8}$	10 $\frac{1}{2}$	4	32 $\frac{3}{4}$	34	16 $\frac{1}{4}$	8 $\frac{1}{2}$	4	24 $\frac{3}{8}$	21
3	24 $\frac{1}{16}$	31	27	22 $\frac{5}{16}$	38 $\frac{7}{8}$	29 $\frac{7}{16}$	39 $\frac{1}{2}$	20 $\frac{9}{16}$	18 $\frac{7}{16}$	16 $\frac{1}{16}$	12 $\frac{3}{4}$	4 $\frac{1}{2}$	39 $\frac{1}{8}$	40 $\frac{3}{4}$	18 $\frac{3}{4}$	10 $\frac{1}{2}$	4 $\frac{1}{2}$	29 $\frac{1}{4}$	24 $\frac{7}{16}$

* Diameter of Pipe to fit over Inlet.

Fan Size	U	V	W	X	Y	Z	AB	AC	AD	AE	AF	AG	AH	PULLEY		KEYWAY		Shaft Diam	Anch Bolts
														Diam	Wdth	Wdth	Dpth		
1½	10 $\frac{11}{16}$	10	8	5 $\frac{1}{8}$	8 $\frac{5}{8}$	11 $\frac{1}{8}$	33 $\frac{5}{8}$	35 $\frac{1}{16}$	$\frac{1}{2}$	17 $\frac{5}{8}$	13 $\frac{9}{16}$	23 $\frac{1}{2}$	15 $\frac{9}{16}$	8	4	$\frac{5}{16}$	$\frac{1}{8}$	1 $\frac{3}{16}$	$\frac{5}{8}$
1¾	12 $\frac{1}{4}$	11 $\frac{7}{16}$	9	5 $\frac{5}{8}$	10 $\frac{3}{8}$	13 $\frac{1}{4}$	38 $\frac{7}{8}$	40 $\frac{1}{2}$	$\frac{1}{2}$	20 $\frac{5}{16}$	15 $\frac{5}{8}$	27 $\frac{1}{16}$	17 $\frac{15}{16}$	10	4	$\frac{5}{16}$	$\frac{1}{8}$	1 $\frac{5}{16}$	$\frac{5}{8}$
2	13 $\frac{5}{8}$	12 $\frac{13}{16}$	9	6 $\frac{1}{8}$	10 $\frac{1}{4}$	13 $\frac{1}{2}$	42 $\frac{3}{8}$	43 $\frac{1}{8}$	$\frac{9}{16}$	23	17 $\frac{9}{16}$	30 $\frac{3}{8}$	20 $\frac{1}{4}$	14	5	$\frac{3}{8}$	$\frac{1}{8}$	1 $\frac{7}{16}$	$\frac{5}{8}$
2¼	15 $\frac{9}{16}$	14 $\frac{3}{16}$	10 $\frac{1}{2}$	6 $\frac{1}{8}$	11 $\frac{5}{8}$	15 $\frac{1}{2}$	47 $\frac{1}{2}$	48 $\frac{11}{16}$	$\frac{9}{16}$	25 $\frac{5}{8}$	19 $\frac{1}{2}$	34	22 $\frac{9}{16}$	16	5	$\frac{3}{8}$	$\frac{1}{8}$	1 $\frac{11}{16}$	$\frac{5}{8}$
2½	16 $\frac{5}{16}$	15 $\frac{7}{8}$	10 $\frac{1}{2}$	6 $\frac{3}{8}$	11 $\frac{5}{8}$	15 $\frac{3}{8}$	50 $\frac{7}{8}$	52 $\frac{3}{8}$	$\frac{9}{16}$	28 $\frac{3}{16}$	21 $\frac{7}{16}$	37 $\frac{1}{2}$	24 $\frac{3}{4}$	18	5	$\frac{3}{8}$	$\frac{1}{8}$	1 $\frac{11}{16}$	$\frac{5}{8}$
3	18 $\frac{5}{8}$	18 $\frac{7}{16}$	11 $\frac{1}{2}$	7	13 $\frac{3}{8}$	17 $\frac{7}{8}$	59	60 $\frac{1}{2}$	$\frac{5}{8}$	33 $\frac{1}{8}$	25	44 $\frac{1}{4}$	29	22	6	$\frac{1}{2}$	$\frac{1}{8}$	1 $\frac{15}{16}$	$\frac{5}{8}$

(TYPE HV FANS)
77% EFFICIENT

-{CLARAGE}-



*Type HV Fan—Sizes 1½ to 3—Arrangement I
Standard Single Width*

Dimension Table

Dimensions are in Inches

Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M
1 1/2	14 1/16	16 5/8	14 9/16	12 9/16	19 1/16	14 13/16	20 1/2	11 1/4	10	10	6 1/4	2 1/2	20 1/16
1 3/4	15 7/8	19 1/16	16 3/4	14 3/8	22 1/4	17 5/16	23 1/2	12 13/16	11 7/16	11 3/16	7 5/16	2 7/8	23 1/4
2	17 5/8	21 1/2	18 13/16	16 1/8	25 1/4	19 11/16	26 3/4	14 7/16	12 13/16	12 7/16	8 3/8	3 1/4	26 1/4
2 1/4	19 7/16	24 1/16	21	17 15/16	28 5/8	22 1/8	30	16	14 3/16	13 5/8	9 7/16	3 5/8	29 5/8
2 1/2	21 3/16	26 7/16	23 1/16	19 11/16	31 3/4	24 9/16	33	17 5/8	15 7/8	15 3/8	10 1/2	4	32 3/4
3	24 7/16	31	27	22 15/16	38 1/8	29 7/16	39 1/2	20 9/16	18 7/16	18 3/16	12 3/4	4 1/2	39 1/8

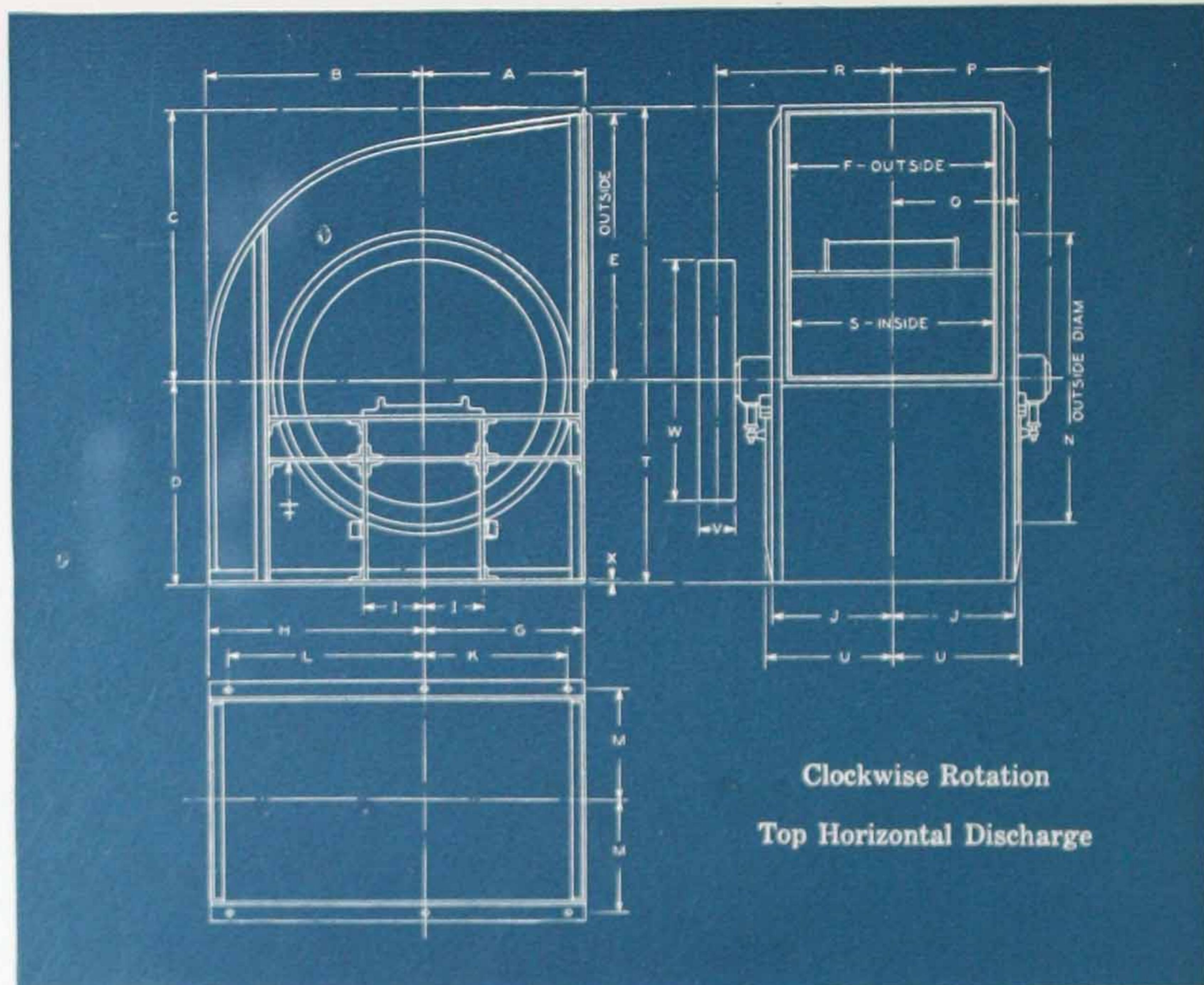
Fan Size	*N	O	P	R	S	T	U	X	KEYWAY		Shaft Diam.	Anchor Bolts
									Width	Depth		
1 1/2	20 1/4	9 15/16	5	2 1/2	14 5/8	1/2	10 11/16	14 7/16	5/16	1/8	1 3/16	5/8
1 3/4	23 3/4	11 7/16	5 7/8	2 7/8	17 1/16	1/2	12 1/4	16	5/16	1/8	1 5/16	5/8
2	27	12 9/16	6 3/4	3 1/4	19 1/2	9/16	13 5/8	17 3/8	3/8	1/8	1 7/16	5/8
2 1/4	30 5/8	14 1/16	7 5/8	3 5/8	21 15/16	9/16	15 5/16	19 13/16	3/8	1/8	1 11/16	5/8
2 1/2	34	16 1/4	8 1/2	4	24 3/8	9/16	16 5/16	20 13/16	3/8	1/8	1 11/16	5/8
3	40 3/4	18 3/4	10 1/2	4 1/2	29 1/4	5/8	18 5/8	23 1/8	1/2	1/8	1 15/16	5/8

*Diameter of Pipe to fit over Inlet.

Note:—Dimensions V, W, Y, Z, AB, AC, AD, AE, AF, AG, AH, AJ and AK dependent upon size and type of motor used.

(TYPE HV FANS)
77% EFFICIENT

(CLARAGE)



Type HV Fan—Sizes 3½ to 9—Arrangement A
Full Housed—Standard Single Width

Dimension Table

Dimensions are in Inches

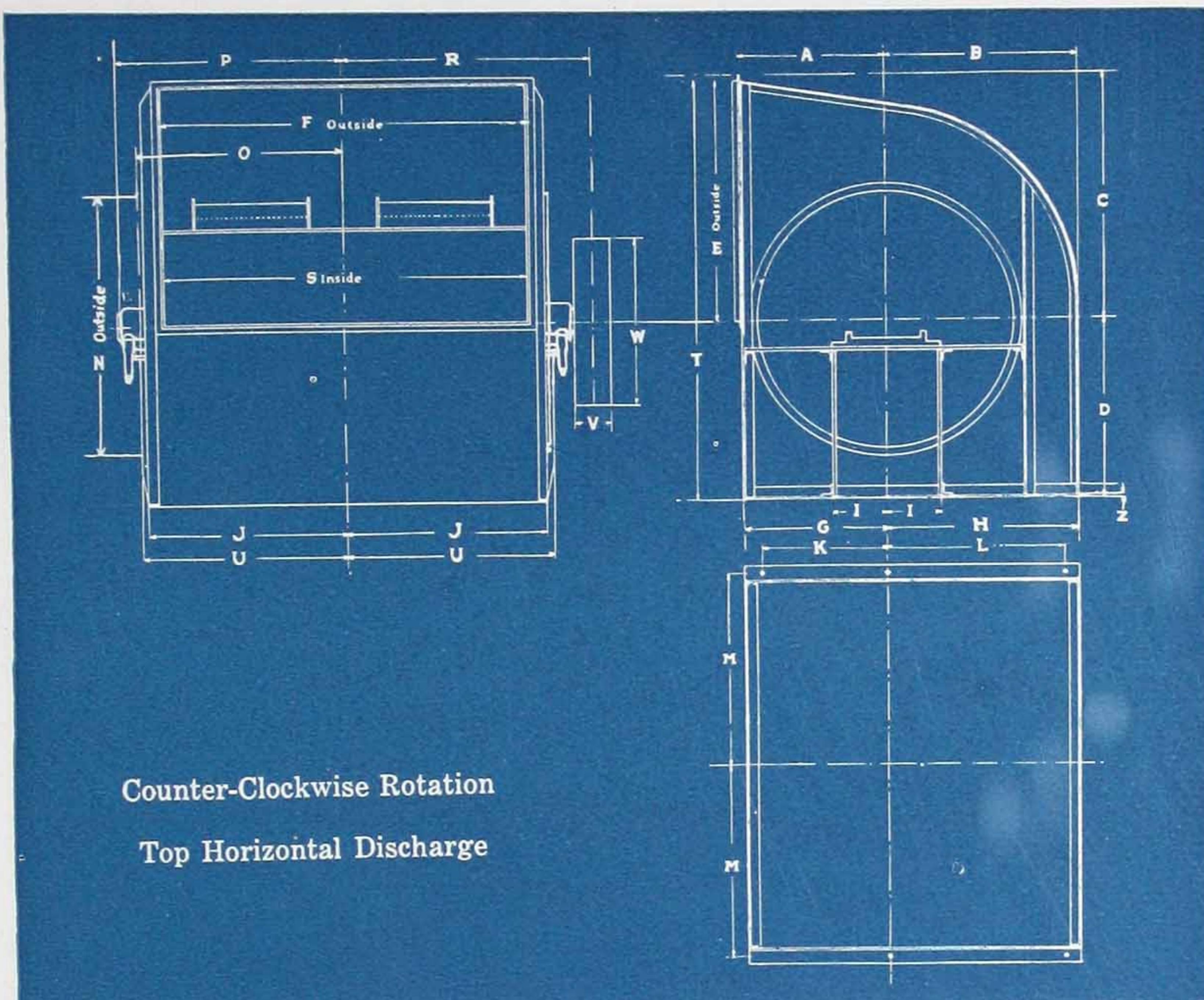
Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	*N
3½	27 1/8	36 5/8	45 5/8	33 3/4	44 1/2	34 1/2	26 5/8	36 1/8	10	20 5/8	23	33	18 9/16	47 1/2
4	30 5/8	41 5/8	51 9/16	38 3/4	50 1/4	39 5/8	30 5/8	41 5/8	11	23 1/8	27	37 1/2	21 1/2	54 1/2
4½	34 5/8	46 5/8	58 7/8	43	57 1/8	44 1/4	34 7/16	46 5/8	12	25 5/16	31	43	23 5/16	61
5	38 1/2	51 9/16	64 1/2	48	63 1/2	49 1/8	38 5/16	51 9/16	12 1/2	28 1/2	34	47 5/4	26 9/16	68
5½	42 1/8	57	71 9/16	52 1/2	70	54 1/8	42 1/8	57	13 1/2	30 5/8	38	53	29 9/16	75
6	46 1/4	62 5/8	77 3/8	57	75 1/4	59	45 1/16	62 5/8	14 1/2	33 3/8	42	58	31 9/16	81 1/8
6½	50 1/8	67 5/8	85 5/8	61 1/2	82 1/2	63 7/8	49 1/16	67 5/8	15 1/2	36 9/16	44 1/2	62	34 1/2	88 1/2
7	53 5/8	72 1/2	91 9/16	66	89	68 3/4	53 5/8	72 1/2	15 1/2	39 1/4	48 1/2	67 1/2	36 9/16	95
7½	57 5/8	77 1/2	98 5/8	70 1/2	95 1/2	73 5/8	57 1/2	77 1/2	16 5/8	41 5/8	52 1/2	72 1/2	39 9/16	102
8	61 5/8	82 1/2	104 5/8	75	101 1/2	78 1/2	61 5/8	82 7/8	16 5/8	44 1/8	55	77 1/2	41 9/16	109
8½	65 5/8	88	111 9/16	80 1/2	108	83 1/2	65 5/8	88	17 5/8	47 5/8	59	82	44 5/8	116
9	69 1/8	93	118 9/16	85	114 1/2	88 3/8	68 1/4	93	17 5/8	50	62 1/2	87	47 5/8	122

* Diameter of Pipe to fit over Inlet.

Fan Size	O	P	R	S	T	U	W	V	X	KEYWAY		Shaft Diam.	Anchor Bolts
										Width	Depth		
3½	20 5/8	26 1/2	29 5/8	34 1/8	79 5/8	21 5/8	28	6	1 1/4	1 1/2	3 1/2	2 5/8	5/8
4	23 5/8	28 1/8	32 1/8	39	90 5/8	23 5/8	36	7	1 1/4	1 1/2	3 1/2	2 5/8	5/8
4½	24 5/8	31 5/8	35 1/2	43 7/8	101 1/8	26 5/8	42	7	1 1/4	1 1/2	3 1/2	2 5/8	5/8
5	29 1/8	34 5/8	39 1/8	48 5/8	112 1/8	29 5/8	48	8	1 1/4	1 1/2	3 1/2	2 5/8	5/8
5½	30 5/8	37 5/8	42	53 1/8	124 5/8	32 1/4	54	8	1 1/4	1 1/2	3 1/2	3 5/8	5/8
6	33 5/8	41 1/8	46 1/2	58 1/2	134 1/8	35 1/4	62	10	1 1/4	1 1/2	3 1/2	3 5/8	5/8
6½	36 5/8	43 5/8	49 1/2	63 1/2	146 1/8	38 5/8	68	10	1 1/4	1 1/2	3 1/2	3 5/8	5/8
7	38 5/8	46 5/8	52 1/2	68 1/2	157 1/8	40 5/8	74	12	1 1/4	1 1/2	3 1/2	3 5/8	5/8
7½	40 5/8	49 5/8	56	73 1/8	168 1/8	44 1/8	80	12	1 1/4	1 1/2	3 1/2	4 1/8	5/8
8	44 5/8	52	59 1/2	78	179 1/8	46 1/8	86	14	1 1/4	1 1/2	3 1/2	4 1/8	5/8
8½	46 5/8	55 5/8	63 1/8	82 1/2	192 1/8	48 1/8	92	16	1 1/4	1 1/2	3 1/2	4 1/8	5/8
9	48 5/8	57 5/8	67 1/8	87 1/8	203 1/8	51 1/8	98	18	1 1/4	1 1/2	3 1/2	4 1/8	5/8

(TYPE HV FANS)
77% EFFICIENT

(CLARAGE)



Type HV Fan—Sizes 3½ to 9—Arrangement A Full Housed—Standard Double Width

Dimension Table

Dimensions are in Inches

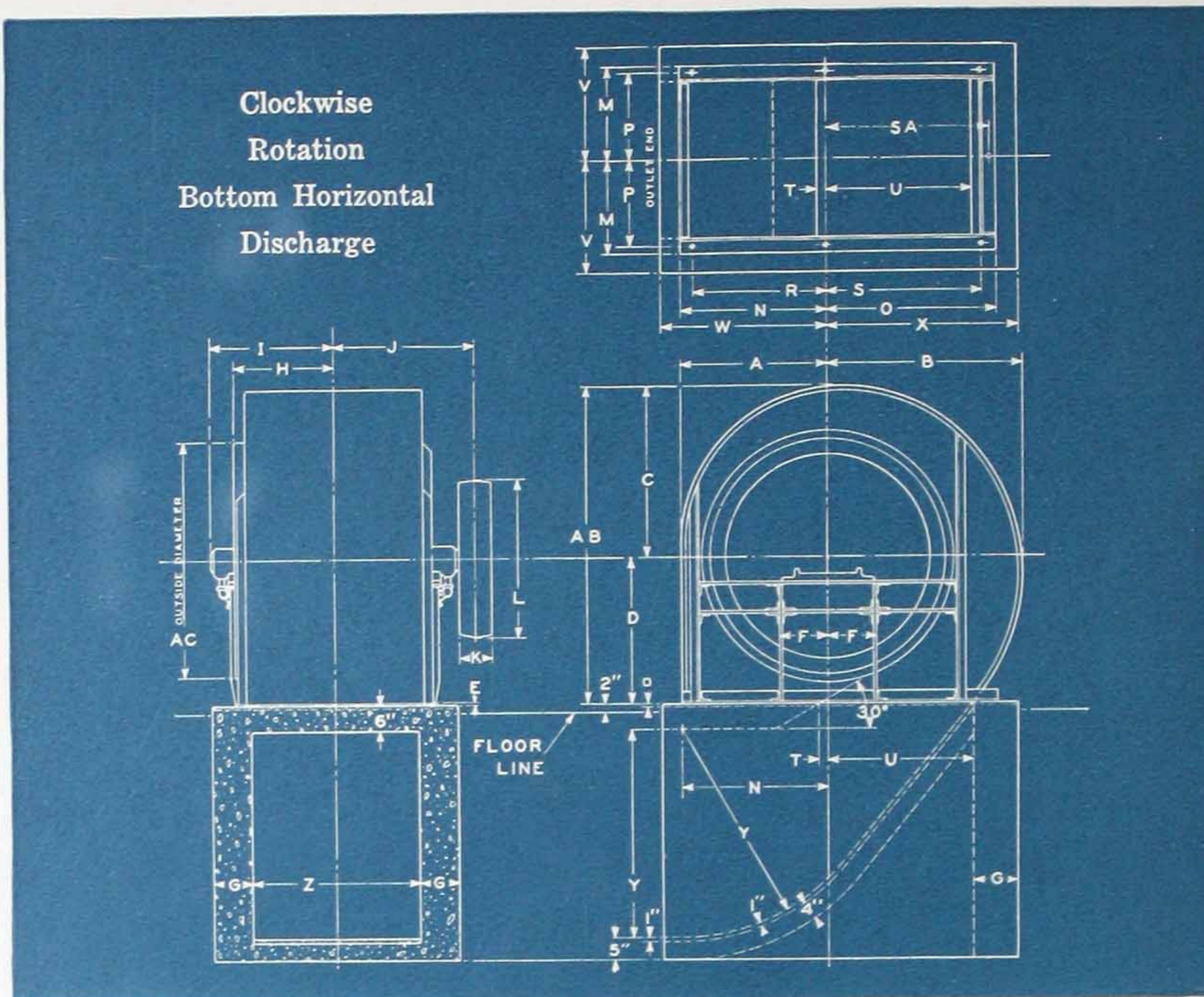
Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	*N
3½	27½	36¾	45 9/16	33 3/4	44 1/2	68 5/8	26 7/8	36 3/8	10 1/2	37 5/16	23	33	35 15/16	47 1/2
4	30 5/16	41 9/16	51 13/16	38 3/4	50 3/4	78 3/8	30 3/4	41 1/16	11 1/2	42 11/16	27	37 1/2	41 1/16	54 1/2
4½	34 5/8	46 1/16	58 7/16	43	57 1/8	88 1/8	34 7/16	46 9/16	12	47 9/16	31	43	45 15/16	61
5	38 1/2	51 13/16	64 13/16	48	63 1/2	97 7/8	38 5/16	51 13/16	13	52 15/16	34	47 3/4	51 1/8	68
5½	42 3/8	57	71 13/16	52 1/2	70	107 3/4	42 1/8	57	13 1/2	57 7/8	38	53	56 15/16	75
6	46 1/4	62 3/16	77 1/16	57	75 1/4	117 1/2	45 15/16	62 3/16	15	62 3/4	42	58	60 15/16	81 1/2
6½	50 1/8	67 5/16	85 5/16	61 1/2	82 1/2	127 1/4	49 13/16	67 7/16	16	68 5/8	44 1/2	62	66 5/16	88 1/2
7	53 5/16	72 1/2	91 13/16	66	89	137	53 5/8	72 1/2	16	73 1/2	48 1/2	67 1/2	71 3/16	95
7½	57 3/4	77 1/2	98 5/16	70 1/2	95 1/2	146 3/4	57 1/2	77 1/2	17	78 3/8	52 1/2	72 1/2	76 1/16	102
8	61 1/16	82 7/8	104 3/16	75	101 1/2	156 1/2	61 3/8	82 7/8	19 1/2	83 1/4	55	77 1/2	80 15/16	109
8½	65 7/16	88	111 11/16	80 1/2	108	166 3/8	65 3/16	88	19 1/2	89 3/16	59	82	86 3/8	116
9	69 1/8	93	118 13/16	85	114 1/2	176 1/8	68 3/4	93	22 1/2	94 1/16	62 1/2	87	91 1/4	122

* Diameter of Pipe to fit over Inlet.

Fan Size	O	P	R	S	T	U	W	V	Z	KEYWAY		Shaft Diam.	Anchor Bolts
										Width	Depth		
3½	37 7/8	43 1/4	47 1/4	68 1/4	79 5/16	38 5/16	28	8	1/4	1/2	1/8	2 3/16	3/4
4	42 11/16	48 1/8	53	78	90 5/16	43 3/16	36	10	1/4	5/8	3/16	2 7/16	3/4
4½	46 3/4	54	59	87 3/4	101 7/16	48 1/16	42	10	1/4	3/4	1/4	2 15/16	3/4
5	54	59 1/4	65 1/4	97 1/2	112 1/16	52 15/16	48	12	5/16	3/4	1/4	3 3/16	3/4
5½	57 9/16	65	71	107 1/4	124 5/16	58 7/8	54	12	5/16	3/4	1/4	3 7/16	3/4
6	62 5/16	70 1/2	77 1/2	117	134 1/16	63 3/4	62	14	5/16	1	3/8	3 15/16	3/4
6½	68 5/16	76 1/2	84	126 3/4	146 13/16	69 5/8	68	16	3/8	1	3/8	4 7/16	3/4
7	72 3/4	81	90	136 1/2	157 1/8	74 1/2	74	18	3/8	1	3/8	4 7/16	3/4
7½	77 1/2	86 7/8	96 3/4	146 1/4	168 9/16	79 3/8	80	20	3/8	1 1/4	1/2	4 15/16	3/4
8	83 1/16	95 3/4	106 3/4	156	179 5/16	85 1/4	86	22	3/8	1 1/4	1/2	5 1/16	3/4
8½	88 1/4	100 3/4	112 3/4	165 3/4	192 3/16	90 3/16	92	24	3/8	1 1/4	1/2	5 7/16	3/4
9	92 9/16	106	119	175 1/2	203 1/16	95 1/16	98	26	3/8	1 1/4	1/2	6 1/16	3/4

(TYPE HV FANS)
77% EFFICIENT

(CLARAGE)



Type HV Fan—Sizes 3½ to 9—Arrangement A
⅛ Housed—Standard Single Width

Dimension Table

Dimensions are in Inches

Size Fan	A	B	C	D	E	F	G	H	I	J	L	K	M	N
3½	29 5/16	38 13/16	34	29	1/4	10	9	20 13/16	26 1/2	29 3/4	28	6	20 5/16	29 5/16
4	33 3/2	44 1/4	38 13/16	33 1/2	1/4	11	9	23 3/16	28 7/8	32 3/4	36	7	23 1/8	33 1/2
4½	37 1/2	49 5/8	43 1/2	37	1/4	12	9	24 13/16	31 3/16	35 1/2	42	7	25 3/16	37 1/2
5	41 3/2	55 1/4	48 3/8	41 1/2	5/16	12 1/2	10	29 3/16	34 3/16	39 1/4	48	8	28 1/2	41 3/4
5½	45 7/8	60 5/16	53 1/4	45 1/2	5/16	13 1/2	10	30 3/4	37 7/16	42	54	8	30 5/16	45 7/8
6	50 3/8	66 5/16	58 1/8	49	5/16	14 1/2	10	33 3/16	41 1/8	46 1/2	62	10	33 3/8	50 1/16
6½	54 1/4	71 11/16	62 7/8	53	3/8	15 1/2	11	36 5/8	43 5/16	49 1/4	68	10	36 3/16	54 1/4
7	58 7/16	77 3/16	67 3/4	57	3/8	15 1/2	11	38 5/8	46 3/8	52 3/4	74	12	39 1/4	58 7/16
7½	62 3/8	82 2/8	72 3/8	60 1/2	3/8	16 5/8	11	40 15/16	49 9/16	56	80	12	41 1/16	62 3/8
8	66 9/16	88 3/8	77 7/16	64 1/2	3/8	16 5/8	11	44 1/16	52	59 1/4	86	14	44 1/8	66 9/16
8½	70 5/16	93 3/8	82 1/4	69	3/8	17 5/8	11	46 3/8	55 7/16	63 3/4	92	16	47 9/16	70 5/16
9	74 7/8	99 5/16	86 7/8	73	3/8	17 5/8	11	48 11/16	57 7/8	67 1/4	98	18	50	74 7/8

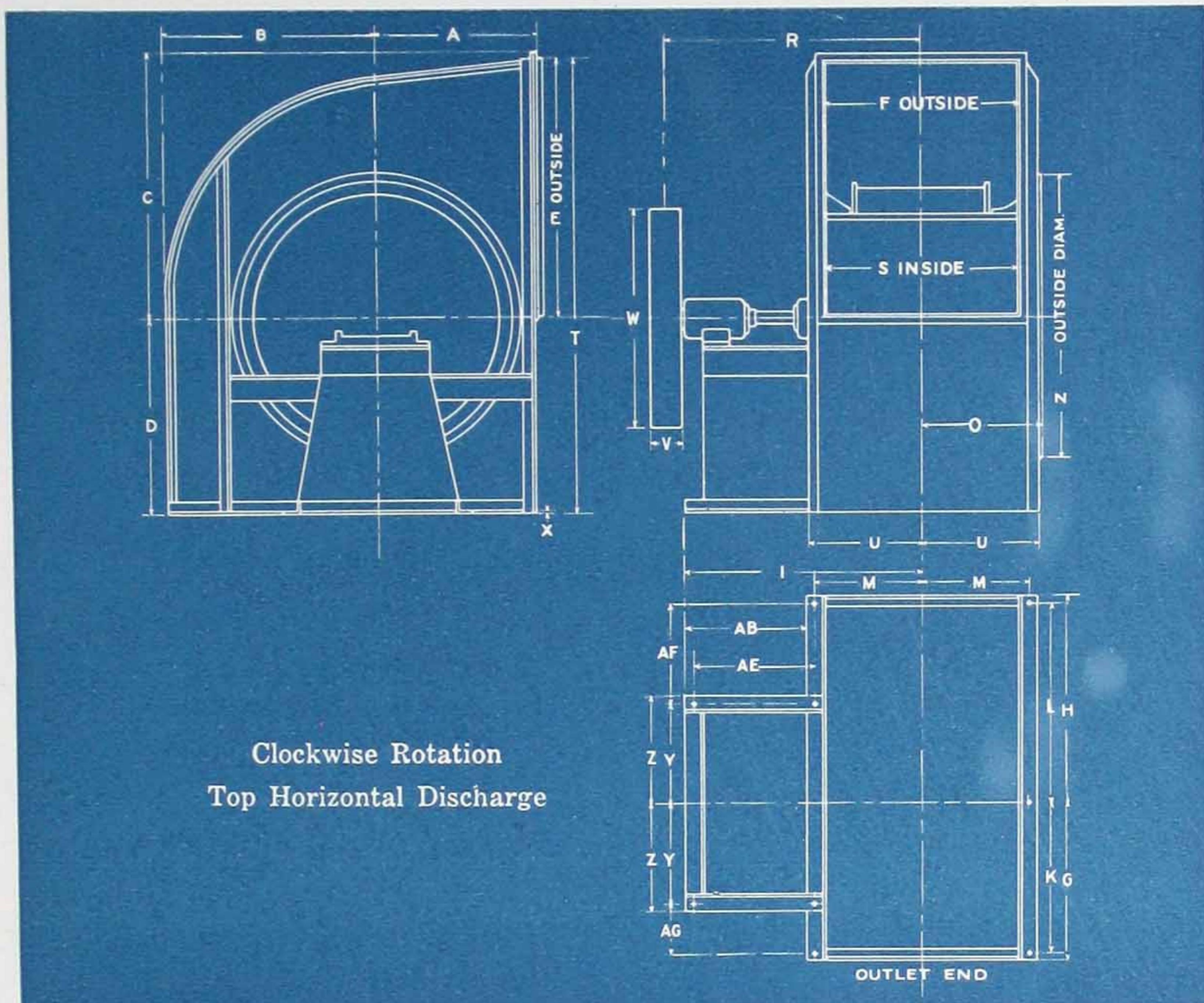
Size Fan	O	P	R	S	T	U	V	W	X	Y	Z	AB	*AC	SA
3½	33 5/8	18 9/16	27 1/4	30 5/8	13/16	28 7/8	26 1/16	33 3/16	37 7/8	44	34 1/8	63	47 1/2	32 1/4
4	38 1/4	21 1/2	31 1/2	34 13/16	15/16	32 5/8	28 1/2	36 7/8	41 5/8	50	39	72 5/16	54 1/2	36 5/8
4½	42 5/8	23 4/16	35 1/2	39 1/8	1 1/16	37 1/8	30 15/16	41	46 1/8	56 1/2	43 7/8	80 1/2	61	41
5	47 1/2	26 9/16	39 1/2	43 1/2	1 3/16	41 1/8	34 3/8	45 3/8	51 1/8	63	48 3/4	89 3/8	68	45 9/16
5½	51 1/4	29 1/8	43	47 3/4	1 1/4	45 5/16	36 13/16	49 7/16	55 5/16	69 1/8	53 3/8	98 3/4	75	49 9/16
6	56 3/16	31 1/16	46 1/2	52 3/8	1 3/8	49 15/16	39 1/4	53 3/16	59 15/16	74 1/4	58 1/2	107 1/8	81 1/2	54 5/8
6½	61 1/2	34 1/2	51	56 1/2	1 1/2	54	42 11/16	57 3/4	65	82	63 3/8	115 3/8	88 1/2	59 3/16
7	65 9/16	36 9/16	54 1/2	60 9/16	1 5/8	58 3/8	45 1/8	62	69 3/8	88 1/2	68 1/4	124 3/4	95	63 1/2
7½	70 1/4	39 3/8	58 1/2	65 1/4	1 2/4	62 7/8	47 9/16	66	73 7/8	93	73 1/8	132 3/8	102	67 9/16
8	74 9/16	41 13/16	63	69 9/16	1 7/8	67 1/4	50	70 3/8	78 1/4	101	78	141 1/16	109	72 3/8
8½	80 5/16	44 3/4	66	74 1/4	2	71	52 7/16	72 5/8	82	107 1/2	82 7/8	151 1/4	116	77 1/2
9	84 1/8	47 5/16	70	78 1/8	2 1/16	75	54 7/8	76 3/4	86	114	87 3/4	159 7/8	122	81 5/16

* Diameter of Pipe to fit over Inlet.

Note:—⅛ Housed Fan not furnished smaller than size 3½.

(TYPE HV FANS)
77% EFFICIENT

(CLARAGE)



Type HV Fan—Sizes 3 1/2 to 9—Arrangement F Full Housed—Standard Single Width

Dimension Table
Dimensions are in Inches

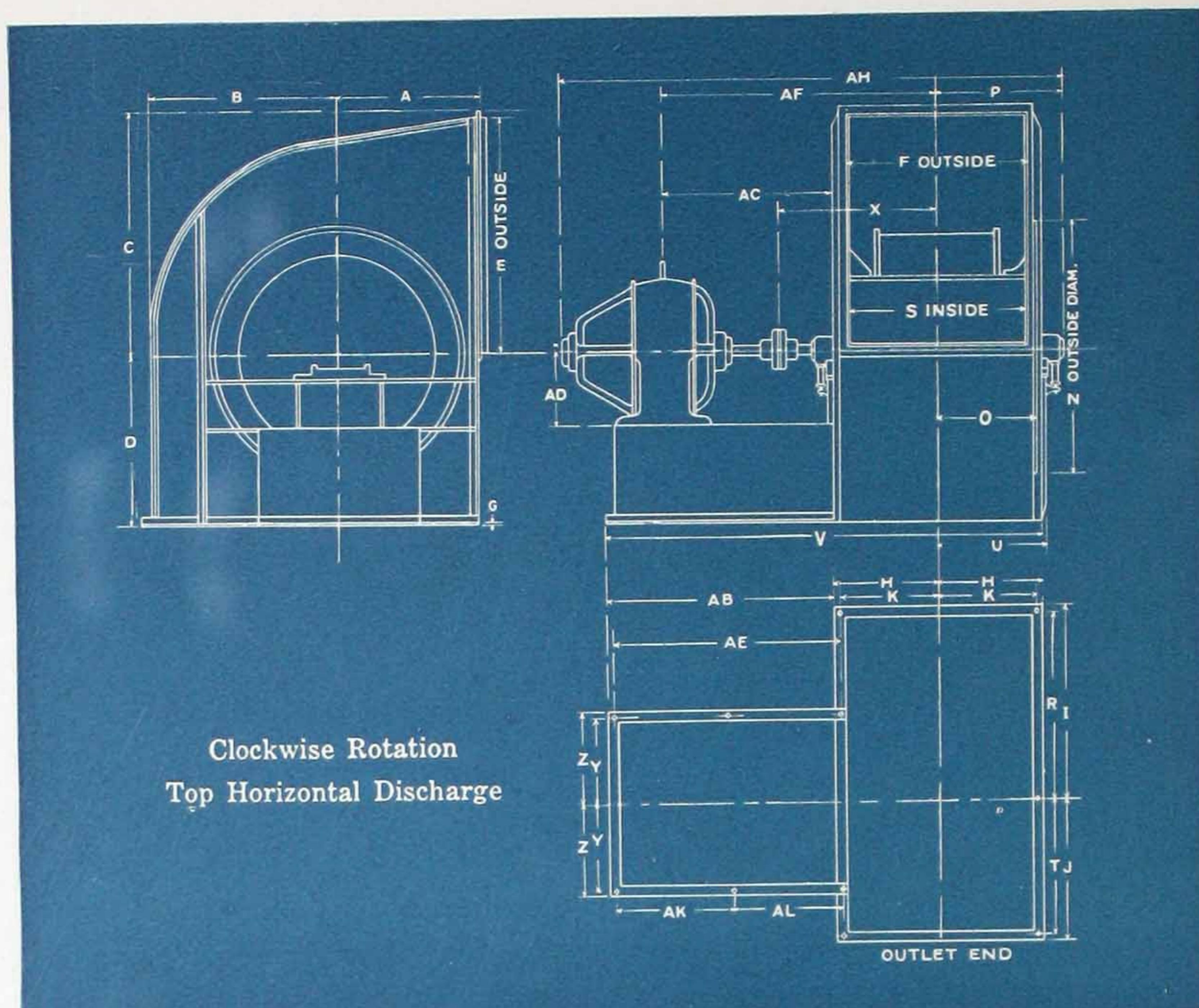
Fan Size	A	B	C	D	E	F	G	H	I	K	L	M	*N	O	R
3 1/2	27 1/8	36 3/8	45 9/16	33 3/4	44 1/2	34 1/2	26 7/8	36 3/8	44 3/8	23	33	18 13/16	47 1/2	20 13/16	48 1/4
4	30 5/16	41 1/16	51 13/16	38 3/4	50 3/4	39 3/8	30 3/4	41 9/16	47 3/8	27	37 1/2	21 1/2	54 1/2	23 3/16	51
4 1/2	34 5/8	46 9/16	58 7/16	43	57 1/8	44 1/4	34 7/16	46 9/16	49 3/4	31	43	23 15/16	61	24 13/16	53 3/4
5	38 1/2	51 13/16	64 13/16	48	63 1/2	49 1/8	38 5/16	51 13/16	58 3/4	34	47 3/4	26 11/16	68	29 9/16	62 3/4
5 1/2	42 3/8	57	71 13/16	52 1/2	70	54 1/8	42 1/8	57	61 1/8	38	53	29 1/8	75	30 3/4	65 1/4
6	46 1/4	62 3/16	77 7/16	57	75 1/4	59	45 15/16	62 3/16	69 3/4	42	58	31 9/16	81 1/2	33 13/16	75 1/4
6 1/2	50 1/8	67 5/16	85 5/16	61 1/2	82 1/2	63 7/8	49 13/16	67 5/16	73 1/4	44 1/2	62	34 1/2	88 1/2	36 5/8	77 1/2
7	53 15/16	72 1/2	91 13/16	66	89	68 3/4	53 5/8	72 1/2	81 5/8	48 1/2	67 1/2	36 15/16	95	38 5/8	86 3/4
7 1/2	57 3/4	77 1/2	98 5/16	70 1/2	95 1/2	73 5/8	57 1/2	77 1/2	84 1/4	52 1/2	72 1/2	39 3/8	102	40 5/16	89 1/2
8	61 9/16	82 7/8	104 5/16	75	101 1/2	78 1/2	61 3/8	82 7/8	92 5/8	55	77 1/2	41 13/16	109	44 1/16	99
8 1/2	65 5/16	88	111 13/16	80 1/2	108	83 1/2	65 3/16	88	102	59	82	44 3/4	116	46 3/8	111 1/2
9	69 1/8	93	118 13/16	85	114 1/2	88 3/8	68 3/4	93	104 1/2	62 1/2	87	47 3/16	122	48 1/16	117 1/2

*Diameter of Pipe to fit over Inlet.

Fan Size	S	T	U	V	W	X	Y	Z	AB	AE	AF	AG	KEYWAY		Shaft Diam.	Anchor Bolts
													Width	Depth		
3 1/2	34 1/8	79 5/16	20 3/16	6	28	1/4	15 5/8	17	24 3/16	22 9/16	17 3/8	7 3/8	1/2	1/8	2 3/16	3/4
4	39	90 9/16	23 1/8	7	36	1/4	16 7/8	18 1/2	24 1/4	22 3/8	20 5/8	10 1/8	5/8	3/16	2 7/16	3/4
4 1/2	43 7/8	101 7/16	25 5/16	7	42	1/4	18 3/8	20	24 3/16	22 5/16	24 5/8	12 5/8	5/8	3/16	2 11/16	3/4
5	48 3/4	112 3/16	28 1/2	8	48	5/16	20 7/16	22 1/4	30 1/4	28 1/16	27 5/16	13 9/16	3/4	1/4	2 5/16	3/4
5 1/2	53 5/8	124 5/16	30 1/16	8	54	5/16	21 11/16	23 1/2	30 3/16	28	31 5/16	16 5/16	3/4	1/4	3 3/16	3/4
6	58 1/2	134 1/16	33 3/8	10	62	5/16	24 3/16	26	36 3/8	34 3/16	33 1/16	17 1/16	3/4	1/4	3 1/16	3/4
6 1/2	63 3/8	146 13/16	36 13/16	10	68	3/8	25 11/16	28	36 7/16	33 4/16	36 5/16	18 13/16	1	3/8	3 5/16	3/4
7	68 1/4	157 13/16	39 1/4	12	74	3/8	27 3/16	29 1/2	42 3/8	39 11/16	40 5/16	21 5/16	1	3/8	4 7/16	3/4
7 1/2	73 1/8	168 13/16	41 11/16	12	80	3/8	29 3/16	31 1/2	42 9/16	39 7/8	43 5/16	23 5/16	1 1/4	1/2	4 11/16	3/4
8	78	179 5/16	44 1/8	14	86	3/8	29 11/16	32	48 1/2	46 13/16	47 13/16	25 5/16	1 1/4	1/2	4 15/16	3/4
8 1/2	82 7/8	192 3/16	47 9/16	16	92	3/8	32 11/16	35 1/2	54 7/16	51 1/4	49 1/16	26 5/16	1 1/4	1/2	5 7/16	3/4
9	87 3/4	203 1/16	50	18	98	3/8	33 11/16	36 1/2	54 1/2	51 5/16	53 5/16	28 13/16	1 1/4	1/2	5 7/16	3/4

(TYPE HV FANS)
77% EFFICIENT

(CLARAGE)



Type HV Fan—Sizes 3½ to 9—Arrangement G
Full Housed—Standard Single Width

Dimension Table
Dimensions are in Inches

Fan Size	A	B	C	D	E	F	G	H	I	J	K	*N
3½	27 1/8	36 3/8	45 9/16	33 3/4	44 1/2	34 1/2	1/4	20 3/16	36 3/8	26 7/8	18 9/16	47 1/2
4	30 5/16	41 9/16	51 13/16	38 3/4	50 3/4	39 3/8	1/4	23 1/8	41 9/16	30 3/4	21 1/2	54 1/2
4½	34 5/8	46 9/16	58 7/16	43	57 1/8	44 1/4	1/4	25 9/16	46 9/16	34 7/8	23 1/16	61
5	38 1/2	51 13/16	64 13/16	48	63 1/2	49 1/8	5/16	28 1/2	51 13/16	38 5/16	26 9/16	68
5½	42 3/8	57	71 13/16	52 1/2	70	54 1/8	5/16	30 15/16	57	42 1/8	29 1/8	75
6	46 1/4	62 3/16	77 13/16	57	75 1/4	59	5/16	33 3/8	62 3/16	45 15/16	31 9/16	81 1/2
6½	50 1/8	67 5/16	85 5/16	61 1/2	82 1/2	63 7/8	3/8	36 13/16	67 5/16	49 13/16	34 1/2	88 1/2
7	53 15/16	72 1/2	91 13/16	66	89	68 3/4	3/8	39 1/4	72 1/2	53 3/8	36 9/16	95
7½	57 3/4	77 1/2	98 5/16	70 1/2	95 1/2	73 5/8	3/8	41 11/16	77 1/2	57 1/2	39 3/8	102
8	61 9/16	82 7/8	104 5/16	75	101 1/2	78 1/2	3/8	44 1/8	82 7/8	61 3/8	41 5/16	109
8½	65 7/16	88	111 13/16	80 1/2	108	83 1/2	3/8	47 9/16	88	65 3/16	44 3/4	116
9	69 1/8	93	118 13/16	85	114 1/2	88 3/8	3/8	50	93	68 3/4	47 3/16	122

*Diameter of Pipe to fit over Inlet.

Fan Size	O	P	R	S	T	U	X	KEYWAY		Shaft Diam.	Anchor Bolts
								Width	Depth		
3½	20 15/16	26 1/2	33	34 1/8	23	21 7/16	32 3/4	1/2	1/8	2 3/16	3/4
4	23 3/16	28 7/8	37 1/2	39	27	23 7/8	35 7/8	5/8	3/16	2 7/16	3/4
4½	24 13/16	31 9/16	43	43 7/8	31	26 5/16	39 1/4	5/8	3/16	2 11/16	3/4
5	29 9/16	34 13/16	47 3/4	48 3/4	34	29 13/16	43	5/8	1/4	2 15/16	3/4
5½	30 3/4	37 9/16	53	53 5/8	38	32 1/4	46 1/4	3/4	1/4	3 3/16	3/4
6	33 13/16	41 1/8	58	58 3/2	42	35 9/16	50 5/8	5/8	1/4	3 11/16	3/4
6½	36 5/8	43 15/16	62	63 3/8	44 1/2	38 3/16	53 7/8	1	3/8	3 15/16	3/4
7	38 5/8	46 3/8	67 1/2	68 1/4	48 1/2	40 5/8	57 7/8	1	3/8	3 15/16	3/4
7½	40 13/16	49 9/16	72 1/2	73 1/8	52 1/2	44 1/16	61 1/4	1	3/8	4 7/16	3/4
8	44 1/16	52	77 1/2	78	55	46 1/2	64 3/4	1	3/8	4 7/16	3/4
8½	46 3/8	55 7/16	82	82 7/8	59	48 13/16	70 5/8	1	3/8	4 15/16	3/4
9	48 9/16	57 7/8	87	87 3/4	62 1/2	51 3/8	74 7/8	1	3/8	4 15/16	3/4

Note:—Dimensions Y, Z, AB, AC, AD, AE, AF, AH, AK and AL dependent upon size and type of motor used.

(TYPE HV FANS)
77% EFFICIENT

[CLARAGE]

Clarage Unit Heater

FURNISHED with a positive, centrifugal fan, mounted as shown, the Clarage Unit Heater is the only equipment of its kind delivering heat direct from the fan radially in all directions. This advantage is of first importance. It means no overheating of one part to properly warm the rest of the building. It means a uniform, agreeable temperature everywhere with practically no heat loss—unusually high heating efficiency. Likewise, since the fan is of the modern backward curve blade type, it cannot overload the motor under any operating conditions. The motor furnished will handle the fan at free air delivery, or with elaborate fresh air intakes, dampers, etc.

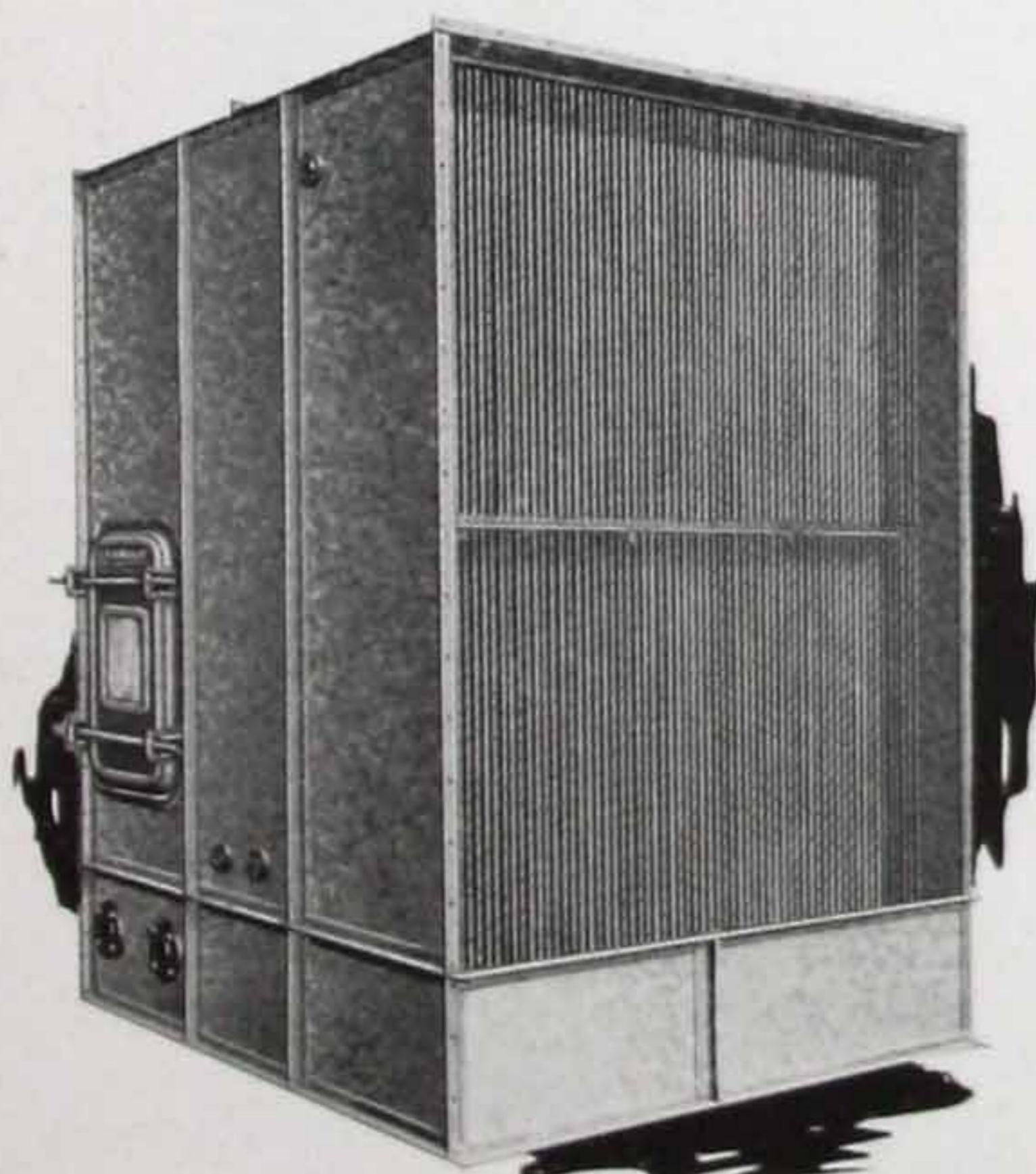
Clarage Unit Heaters are built in three standard sizes, either floor or ceiling type, to meet all industrial heating requirements with maximum economy. They have over five times the capacity of an equal amount of direct radiation and include many refinements not found elsewhere. Catalog 42 gives complete information and specifications.

Type V Air Washer

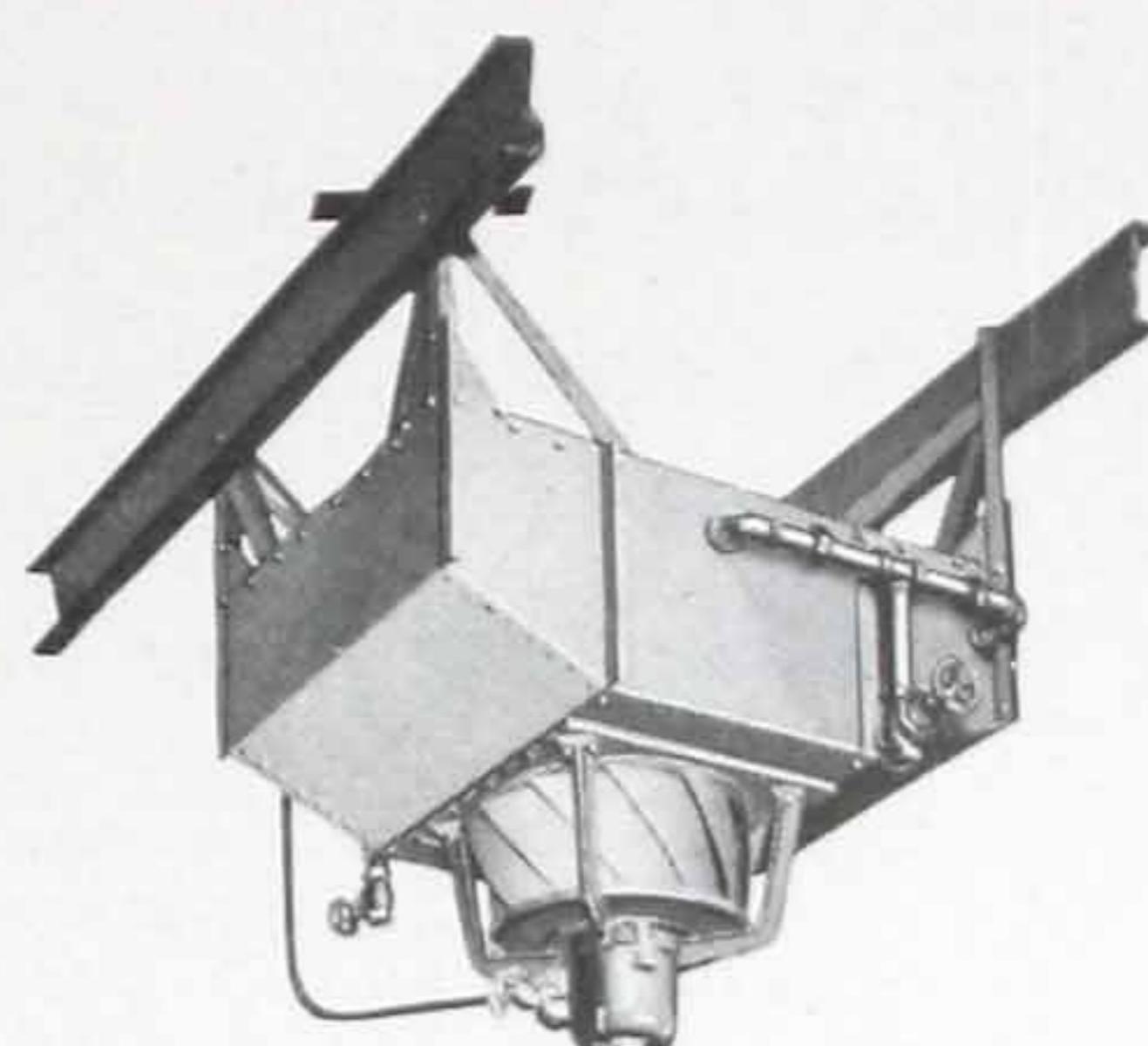
THE Type V Washer embodies a number of outstanding advantages. For one thing, the nozzles provided are designed to produce an unbroken mist screen at considerably lower pump pressures, saving as high as 25% in power cost for operating the re-circulating pump; nor can the nozzles clog, since their design is simple and all openings are of ample size. All spray piping is self-supporting and is not carried as a dead weight on the washer casing. A water-tight inspection door is furnished as regular equipment. The Clarage Guarantee placed on this washer includes both performance and construction.

The standard Type V Washer, in the large range of sizes available, meets practically all washed air ventilating and air conditioning requirements. Most of the larger Type HV Fan installations cited on pages 5 and 6 in this Catalog also include Clarage Air Washers. Write for Catalog 72 illustrating and fully describing this high grade equipment.

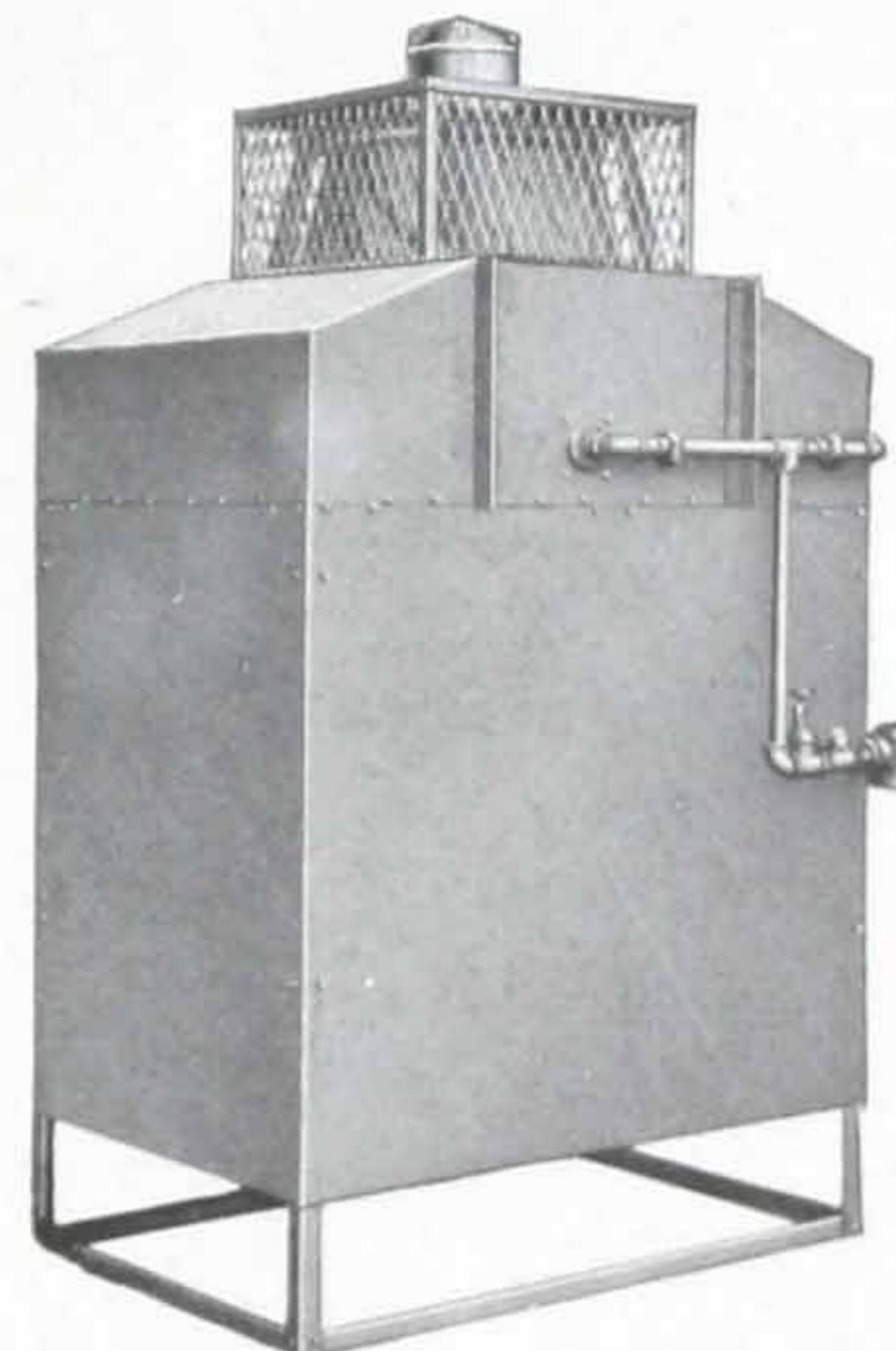
For unusual humidifying and de-humidifying applications special Clarage Air Washing Equipment is designed and built. Consult with Clarage engineers on any problem of this type.



TYPE V AIR WASHER



CEILING TYPE HEATER



FLOOR TYPE HEATER

New High Speed Ventilating Fan

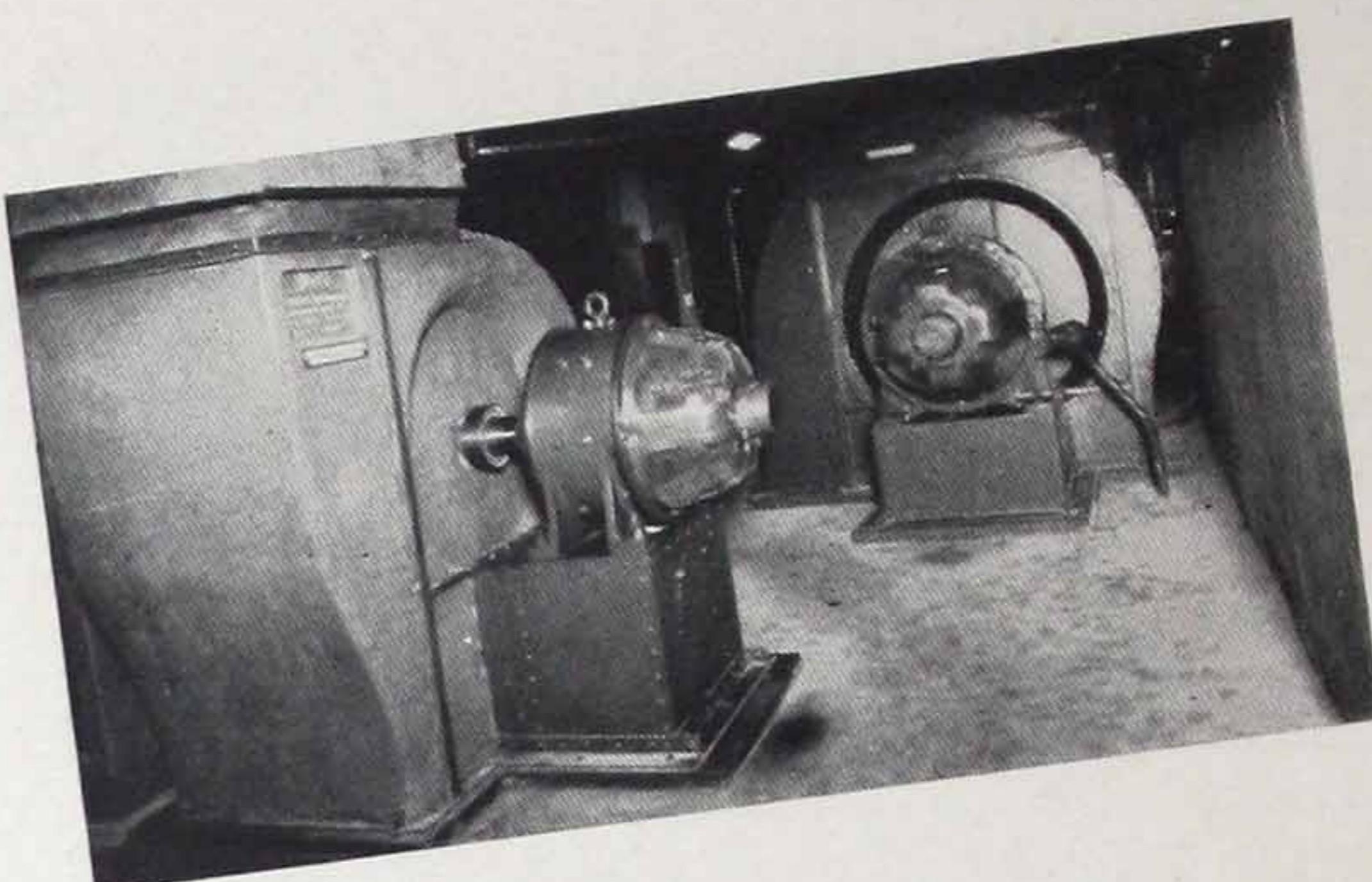
THIS is a recent Clarage development designed in accordance with the best in modern fan engineering practice, and embodying a scientifically proportioned backward curve blade type wheel which gives the unit a self-limiting horsepower characteristic. It is impossible to overload the motor used for driving the fan, even though all static resistance is eliminated and the fan operates at maximum capacity with free air delivery. As a result, it is not necessary to figure a large safety allowance in the motor because of the ample safety factor incorporated into the fan design. The high operating speeds also promote economy since they permit direct drive from standard speed motors. Write for complete information.

[TYPE HV FANS]
77% EFFICIENT

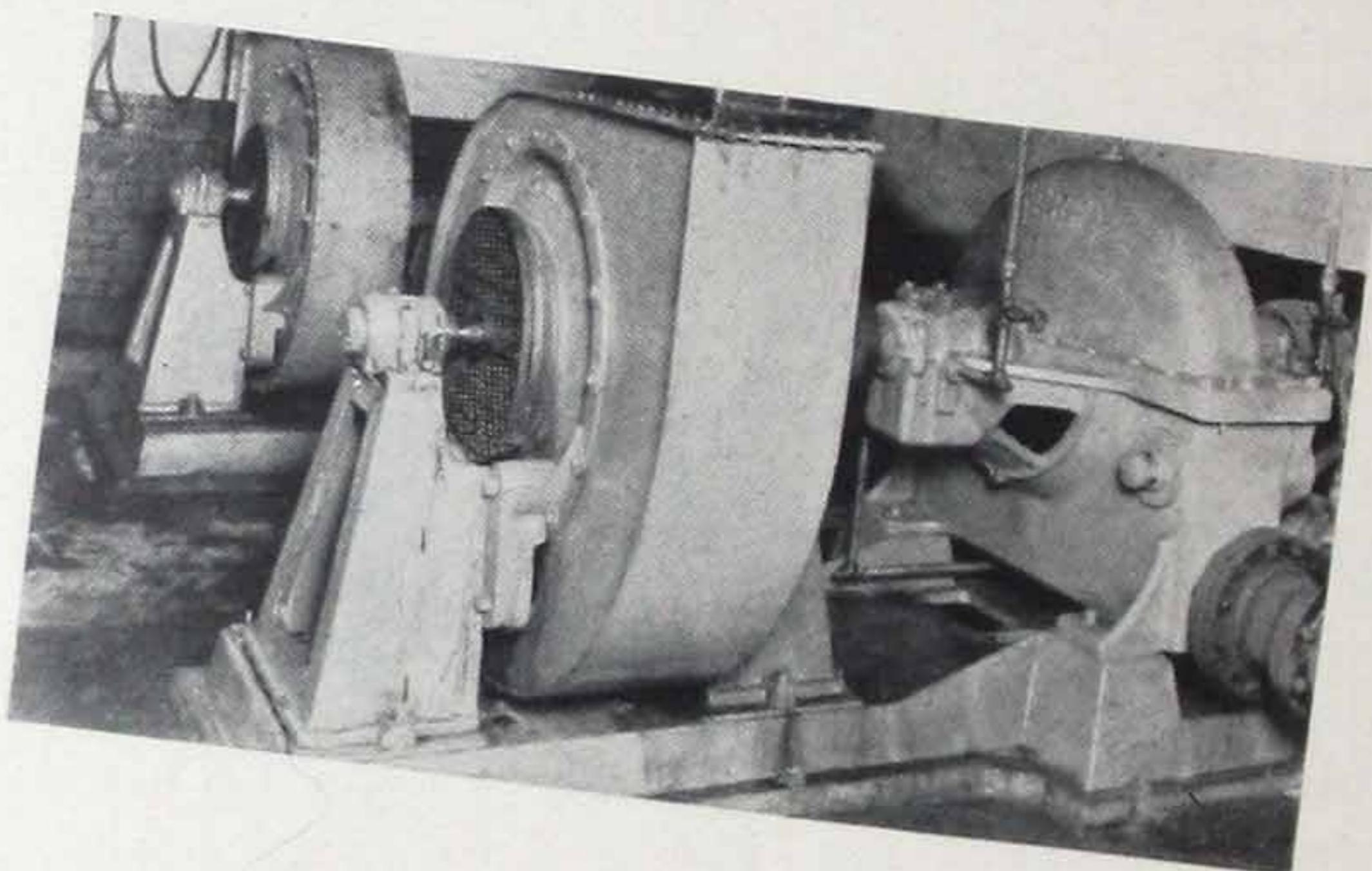
CLARAGE

Manufactures a Complete Line of Air Handling Equipment and Allied Apparatus

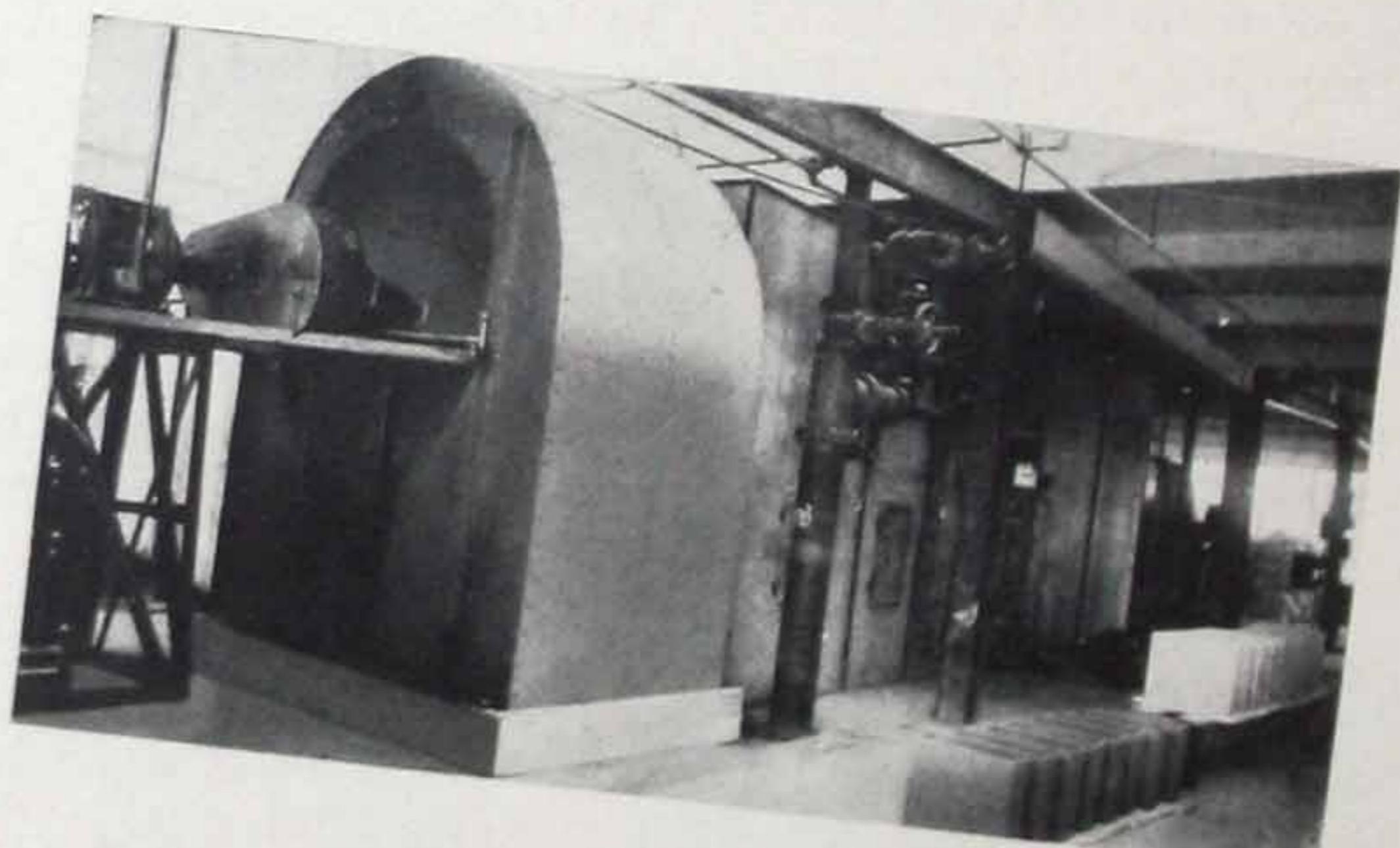
- Acid Proof Fans
- Air Conditioning System
- Air Washers
- Blast Grates
- Blowers
- Cast Iron Fans
- Cooling Fans
- Cotton Fans
- Crown Ventilators
- Cupola Blowers
- Dehumidifying Systems
- Drying Systems
- Engines (Vertical Steam)
- Exhausters
- Fans
- Forced Draft Blowers
- Gas-Tight Fans (Exhausting and Pressure Boosting)
- Heaters
- Heating & Ventilating Systems
- High Speed Forced Draft Blowers
- Humidifying Systems
- Induced Draft Fans
- Inspection Doors
- Mechanical Draft Equipment
- Mine Fans
- Multiblade Fans
- Mushroom Ventilators
- Planing Mill Exhausters
- Powdered Coal Fans
- Pressure Blowers
- Reversible Fans and Blowers
- Sheet Metal Doors
- Slow Speed Planing Mill Exhausters
- Steam Engines
- Steel Plate Fans
- Unit Heaters
- Ventilating Systems
- Waste Heat Fans
- Water Gas Blowers



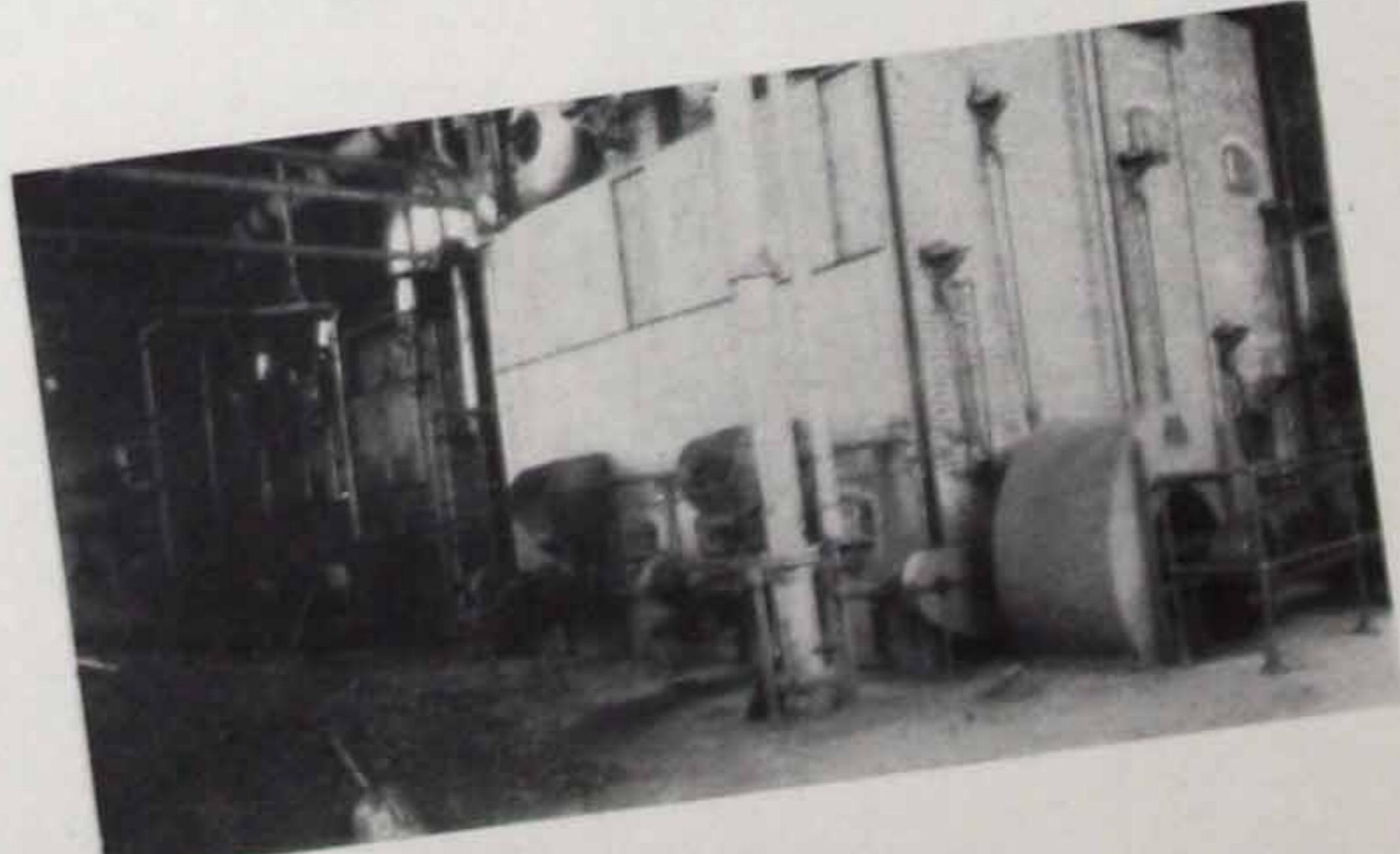
Clarage Ventilating Fans Operating in
The Palmer House, Chicago, Ill.



Type P Water Gas Blowers at Southern Indiana
Gas & Electric Co., Evansville, Ind.



Humidifying System for Enamelled Ware,
Thomas Maddock's Sons' Co., Trenton, N.J.



Forced Draft Fan Servicing Boilers
Maumee Finishing Co., Toledo, O

[BLANK PAGE]



CCA

